PB83-240689

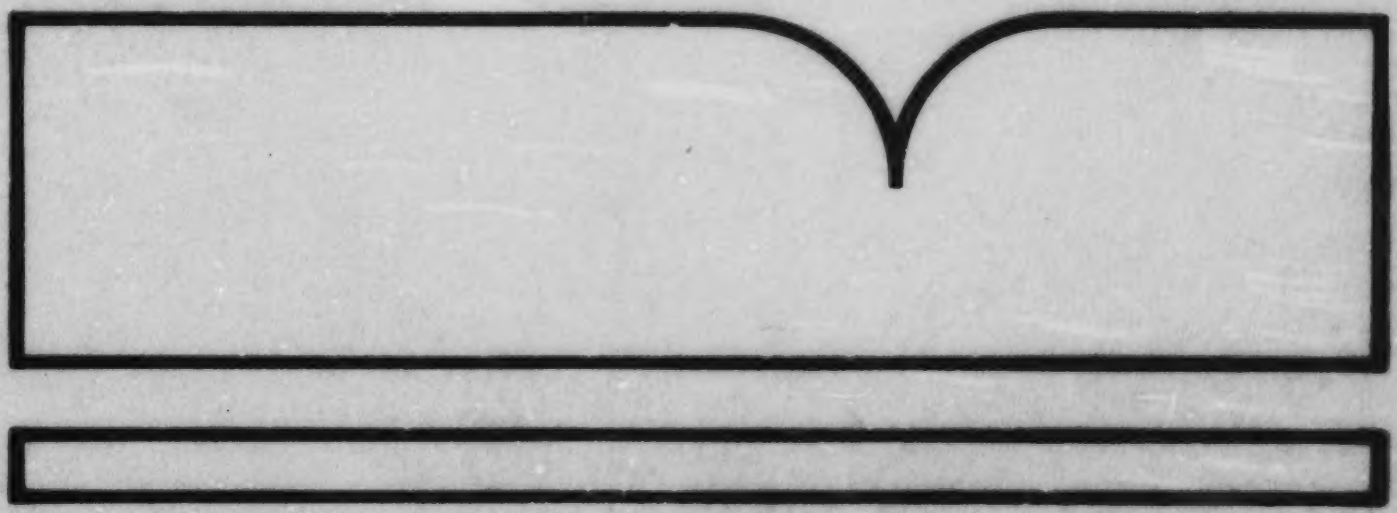
Characterization of the NOx and SO2 Control Performances, Southern Indiana Gas and Electric Co., A.B. Brown Unit No. 1 Volume 2. Program Documentation

GCA Corp., Bedford, MA. GCA Technology Div.

Prepared for

Industrial Environmental Research Lab.
Research Triangle Park, NC

Jul 83



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16. ABSTRACT The five-volume report gives results of a continuous emissions monitoring program at Southern Indiana Gas and Electric Company's (SIGECO's) A.B. Brown Power Plant, to characterize the NOx and SO2 control performances of Unit 1 in terms of process variables. NOx results show that the unit operated at significantly below 70 percent of the existing NOx standard (301 ng/J). Daily averages were 135-219 ng/J, with a mean of 163 ng/J. Thirty-day rolling averages were 160-167 ng/J. SO2 results indicate a mean removal efficiency of 88.0 percent and emissions of 344 ng/J for the north tower, and 86.5 percent and 391 ng/J (respectively) for the south tower. Thirty-day rolling averages were 85.8-90.5 percent and 85.3-88.0 percent for the north and south towers, respectively. Thirty-day rolling average SO2 outlet emission rates were 274-396 ng/J and 355-418 ng/J for the north and south towers, respectively. Volume I gives program results; Volume II, program documentation; Volume III, SO2 data reports for the north module; Volume IV, SO2 data reports for the south module; and Volume V, data reports for NOx.

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CHARACTERIZATION OF THE NO_x AND SO_2 CONTROL PERFORMANCES; SOUTHERN INDIANA GAS & ELECTRIC CO., A.B. BROWN UNIT NO. 1: Volume II. Program Documentation

by

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EPA Contract 68-02-3168
Taks No. 46

EPA Project Officer
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CONTENTS

Tables		iv
Exhibits		vii
1.	Introduction	1
2.	Computer Program Documentation	3
3.	Calibration Data Equations--Daily Three-Point Data	11
	Multipoint Calibration Equation	11
	Daily Three-Point Calibration Data	16
4.	Performance Specification Tests	31
	24-Hour Zero and Calibration Drift	32
	Calibration Error	38
	Relative Accuracy Tests	47
	Precision Estimate Data	86
5.	SIGECO Operations Data	109
	Unit Operating Logs	109
	Chemical Analyses Data	253
	Coal Reports	

TABLES

Number		Page
1	Inlet SO_2 Calibration Equations	12
2	Outlet SO_2 Calibration Equations	12
3	Inlet NO_x Calibration Equations	13
4	Inlet O_2 Calibration Equations	13
5	Outlet O_2 Calibration Equations	14
6	Inlet CO Calibration Equations	14
7	Outlet CO_2 Calibration Equations	15
8	Inlet SO_2 Three Point Data	17
9	Outlet SO_2 Three Point Data	19
10	Outlet NO_x Three Point Data	21
11	Inlet O_2 Three Point Data	23
12	Outlet O_2 Three Point Data	25
13	Inlet CO Three Point Data	27
14	Outlet CO_2 Three Point Data	29
15	24-Hour Zero and Calibration Drift Summary	33
16	Inlet SO_2 Drift Data	34
17	O_2 Inlet Drift Data	34
18	Inlet NO_x Drift Data	35
19	Inlet CO Drift Data	35

TABLES (continued)

Number		Page
20	Outlet SO_2 Drift Data	36
21	Outlet O_2 Drift Data	36
22	CO_2 Outlet Drift Data	37
23	Calibration Error Summary	39
24	Inlet SO_2 Calibration Error Data	40
25	Outlet SO_2 Calibration Error Data	41
26	Inlet O_2 Calibration Error Data	42
27	Outlet O_2 Calibration Error Data	43
28	Outlet CO_2 Calibration Error Data	44
29	Inlet NO_x Calibration Error Data	45
30	Inlet CO Calibration Error Data	46
31	Summary of Relative Accuracy Test Results for A. B. Brown 1	48
32	Relative Accuracy Summary - Test No. 1, August 3 Through 13, 1981.	49
33	North Inlet: Horiba SO_2--MSA O_2	51
34	North Inlet Emissions	52
35	North Outlet DuPont SO_2--MSA O_2	53
36	North Outlet Emissions.	54
37	North Inlet NO_x and Emissions	55
38	North Outlet CO_2	56
39	South Inlet: Horiba SO_2--MSA O_2	58
40	South Outlet DuPont SO_2--MSA O_2	59
41	South Outlet Emissions.	60

TABLES (continued)

Number		Page
42	South Inlet NO_x and Emissions	61
43	South Inlet CO_2	62
44	Relative Accuracy Summary, Test No. 2, September 12 through 17 1981.	63
45	North Inlet: Horiba/SO_2	65
46	North Inlet and Outlet: MSA/O_2	66
47	North Outlet: DuPont/SO_2	67
48	North Outlet: DuPont/SO_2 and Horiba/CO_2	68
49	South Inlet: Horiba/SO_2	70
50	South Inlet and Outlet: MSA/O_2	71
51	South Outlet: DuPont/SO_2	72
52	South Outlet: DuPont/SO_2 and Horiba/CO_2	73
53	Relative Accuracy Summary - Test No. 3, October 7-8, 1981	74
54	North Inlet: Horiba/SO_2	76
55	North Outlet: DuPont SO_2	77
56	North Outlet: DuPont/SO_2/Horiba/CO_2	78
57	North Inlet and OUtlet: MSA/O_2	79
58	North Inlet: TECO/NO	80
59	South Inlet: Horiba/SO_2	82
60	South Outlet: DuPont/SO_2	83
61	South Outlet: DuPont/SO_2 and Horiba/CO_2	84
62	South Inlet and Outlet: MSA/O_2	85
63	Precision Estimate Summary.	88

TABLES (continued)

Number		Page
64	Inlet SO_2/Horiba	89
65	Outlet SO_2/Dupont	93
66	Inlet O_2/MSA	97
67	Outlet O_2/MSA	102
68	Outlet CO_2/Horba	106
69	Boiler Operating Logs July 31 to October 9, 1981.	111
70	Scrubber Operating Logs July 31 to October 9, 1981.	183
71	Routine Chemical Data Generated	258
72	SIGECO Monthly Reports	270
73	Supplier Coal Reports	274

EXHIBITS

Number		Page
1	Data Tape Specifications.	4
2	North and South Tower SO_2 File; 15 Minute Average	5
3	North and South Tower NO_x File Format; 15 Minute Average	6
4	North and South SO_2 Hourly Data File Format	7
5	North and South NO_x Hourly Data File Format	8
6	North and South SO_2 Daily Average File Format	9
7	North and South NO_x Daily Average File Format	10

SECTION 1

INTRODUCTION

On June 11, 1979, the Environmental Protection Agency promulgated the New Source Performance Standards for Utility Steam Generators. These regulations are contained in Subpart Da of 40 CFR 60 and apply to utility steam generators for which construction was commenced after September 18, 1978.

Following promulgation of a standard, the EPA is required to assemble data and to conduct a review of the standard every 4 years. In preparation for this review, the Office of Air Quality Planning and Standards (OAQPS) initiated an overall program pertaining to the sulfur dioxide control standard. The purpose of the program is to document the performance of high efficiency sulfur dioxide scrubber systems. This program subsequently involved the testing of two dual alkali and two lime assisted wet scrubber systems. These system types were considered "state-of-the-art" demonstrating consistently high sulfur control performance.

GCA/Technology Division contracted with the Emissions/Effluent/Effluent Technology Branch of Industrial Environmental Research Laboratory located at Research Triangle Park, North Carolina (IERL-RTP) to conduct the test program at the A. B. Brown Power Plant. The primary objectives of the program were to assess the SO_2 and NO_x control performances of the FMC dual alkali scrubber and the Babcock and Wilcox (B+W) wall-fired boiler, respectively. Of secondary importance was the evaluation of these performances in conjunction with various process data that were available. Sulfur emission control performance was of primary concern to OAQPS while the correlation of process data to operational performance was of more interest to IERL-RTP. Additionally, IERL-RTP included NO_x performance as part of the test since the unit was equipped with a low NO_x furnace.

The complete final report for this program is contained in three separate volumes which are entitled:

- Characterization of the NO_x and SO_2 Control Performances; Southern Indiana Gas and Electric Co., A. B. Brown Unit No. 1
  - Volume I--Program Results
  - Volume II--Program Documentation
  - Volume III--North Module Sulfur Dioxide Data Reports.

- Volume IV--South Module Sulfur Dioxide Data Reports

- Volume V--Oxides of Nitrogen Data Reports

An abbreviated version of these volumes is contained in a summary report.

The following volume contains documentation for the inputs utilized to derive the conclusions presented in Volume I. This volume is divided into the following four sections:

- Computer program documentation
- Calibration equations and calibration check data
- Performance specifications and quality assurance data
- SIGECO process logs and analytical data

SECTION 2

DATA FILE OPERATING DOCUMENTATION

The data printouts contained in Volumes III, IV and V of this report are also available on nine track magnetic tape. This tape file has been submitted as part of the EPA final report and is available from the National Technical Information Service (NTIS) located in Washington, D.C.

Tape specifications and file names are shown in Exhibit 1. These files are formatted exactly the same as the hard copy printouts contained in Volumes III, IV, and V. Exhibits 2 through 7 show an example of each data file record with column headings for the SO_2 and NO_x data files. All averaging periods are presented basically in the same format. Included on each exhibit are the FORTRAN formatting statements to further explain the file structure.

EXHIBIT 1. DATA TAPE SPECIFICATIONS

GCA TAPE LOG DATE: 10/15/82

VOLUME = SERIAL = GCA466

LOCATION _____

WRITTEN BY: GCA CORPORATION/TECHNOLOGY DIVISION
BEDFORD, MASSACHUSETTS

LABELS: STANDARD IBM
TRACKS: 9
CHARACTER CODE: EBCDIC
PARITY: ODD
DENSITY (bpi): 6250

FILE NO.	DATA SET NAME*	RECORD FORMAT	RECORD LENGTH	BLOCK SIZE	CONTENTS
1	NOUT	FB	80	800	NORTH TOWER 15 MIN AVG
2	SOUT	FB	80	800	SOUTH TOWER 15 MIN AVG
3	NOXOUT	FB	80	800	NORTH AND SOUTH TOWERS NO_x 15 MIN AVG
4	NOUTHR	FB	80	800	NORTH TOWER HOURLY AVG
5	SOUTHR	FB	80	800	SOUTH TOWER HOURLY AVG
6	NOXHR	FB	80	800	NORTH AND SOUTH TOWERS HOURLY NO_x AVG
7	NDAY	FB	80	800	NORTH TOWER DAILY AVERAGES
8	SDAY	FB	80	800	SOUTH TOWER DAILY AVERAGES
9	NOXDAY	FB	80	800	NORTH AND SOUTH TOWERS DAILY NO_x AVGS

*THE DATA SET NAMES LISTED SHOULD BE PREFIXED AND SUFFIXED AS FOLLOWS:
GCAGT.ABBROWN._____.DATA

EXHIBIT 2. NORTH AND SOUTH TOWER SO_2 FILE; 15 MINUTE AVERAGES

NORTH AND SOUTH TOWER 15 MIN AVERAGES SO_2

```
FORMAT(1X,I3,I2,I2,I3,I3,I4,F5.2,I4,I3,F5.2,F5.2,F5.3,I3,I3,          N+S
*      F4.1,F4.2,I4,F4.2,F4.1                                          15
```

```
DSNAME='GCAGT.ABBROWN.NOUT.DATA'
      21212 1**********************************************************************
      21212 2 97***2033 8.272353153 8.1311.261.13417517492.66.52 4718.36 3.4
      21212 3 98***2044 8.052325180 7.9211.461.13320220291.36.49 4478.15 3.2
      21212 4**********************************************************************
      21213 1 97***2092 8.242416183 8.0911.301.13420820891.46.52 9317.03 3.3
      21213 2 99***2130 8.392489163 8.1511.241.13418618692.56.52 4588.51 3.2
      21213 3100 682164 8.072465145 8.7611.411.06317416392.96.49 4738.07 3.3
      21213 4**********************************************************************
      21214 1 98 641950 8.262255192 8.1211.181.14421922190.36.5110677.78 3.2
      21214 2 97 702200 8.302553155 8.1511.171.14117717893.16.54 6328.00 3.2
      21214 3 98 592276 8.212622161 8.0611.271.14018318393.86.52 4368.38 3.2
```

DAY	HR.	QTR.	BLR. LOAD	ML OO D. AD	IN SO_2	IN O_2	E_{O2} IN	OUT SO_2	OUT O_2	OUT CO_2	F_O	E_{O2} OUT	E_{CO2} OUT	EFF	pH	REGEN FLOW	LIME pH	OPAC

EXHIBIT 3. NORTH AND SOUTH NO_x FILE FORMAT; 15 MINUTE AVERAGES

NORTH AND SOUTH TOWER NO_x 15 MIN AVERAGE

```
FORMAT(1X,I3,I2,I2,I3,I4,F4.2,F4.1,I3,F5.2,I3,I3,I3,F5.2,                    NOx
*      I3,I3,I3,I3,I3                                                        15 MIN
```

```
21911 110713696.8448.7205 7.99 33166206 7.95 40167166 54 55
21911 210813796.8849.0211 8.14 33173206 8.05 40168170 58 56
21911 310913906.9349.6211 8.10 35173209 7.84 43168170 58 56
21911 410813916.8148.3212 8.27 34176207 8.20 40171173 59 57
21912 110713706.6246.4208 8.20 34172108***** 26**************
```

DAY	HR.	QTR.	BLOAD	AIR FLOW	O_2 HTR	EX AIR	N NOx	N O_2	N CO	N E_{NOx}	S NOx	S O_2	S CO	E_{NOx} S	E_{NOx} AUG	ST CO	NOx STD

EXHIBIT 4. NORTH AND SOUTH SO_2 HOURLY DATA FILE FORMAT

NORTH AND SOUTH SO_2 HOURLY DATA

```
FORMAT(1X,I3,I2,I3,I3,I4,F5.2,I4,I3,F5.2,F5.2,F5.3,I3,I3,                N+S HR
*      F4.1,F4.2,I4,F4.2,F4.1,I3,I2)

DSNAME='GCAGT.ABBROWN.NOUTHR.DATA'
        21212 97***2038 8.162339166 8.0211.361.13418818891.96.51 4598.24 3.3
        21213 98***2128 8.232456163 8.3411.321.11018918592.36.51 6207.46 3.3
        21214 97 662159 8.252494177 8.1011.221.14120220391.86.51 6957.84 3.3
        21215 96 702438 8.212809182 8.0911.251.13920720792.66.50 5737.72 3.2
        21216106**********************************************************
        21217104 702564 7.732848 5310.54 8.311.245 74 8197.66.5213326.85 3.2
```

DAY	HR.	BLR.	MOD LOAD	SO_2 IN	O_2 IN	E_{O2} IN	SO_2 OUT	O_2 OUT	CO OUT	F_O	E_{O2}	E_{CO2}	EFF	TOWER pH	TOT. REGEN FLOW	LIME pH	OPAC.

EXHIBIT 5. NORTH AND SOUTH NO_x HOURLY DATA FILE FORMAT

NORTH AND SOUTH NO_x HOURLY DATA

```
FORMAT(1X,I3,I2,I3,I4,F4.2,F4.1,I3,F5.2,I3,I3,I3,F5.2,                    NOx HR
*      I3,I3,I3,I3,I3)
```

```
21722 9813536.1441.6197 9.89 35174190 8.56 39162168 59 55
21723 9913556.2142.3197 8.96 35173193 8.57 40164168 60 55
218 810012166.4444.5195 9.20 36175196 8.67 40168171 61 56
218 110013886.4744.9193 9.13 35172196 8.64 39167169 58 55
218 210014066.5445.5196 9.22 34176201 8.75 38173174 57 57
218 3 9914066.7848.0201 9.26 34181203 8.84 38177179 57 59
218 410114146.8148.3201 9.24 32180200 8.94 36175177 55 58
```

DAY	HR.	BLR. LOAD	AIR FLOW	O_2 HTR.	Ex AIR	NO_x	N O_2	N CO	N E_{NO_x}	S NO_x	S O_2	S CO	S E_{NO_x}	E_{NO_x} AUG	CO	NO_x STD.

EXHIBIT 6. NORTH AND SOUTH SO_2 DAILY AVERAGE FILE FORMAT

NORTH AND SOUTH SO_2 DAILY AVERAGES

```
FORMAT(1X,I3,I3,I3,I4,F5.2,I4,I3,F5.2,F5.2,F5.3,I3,I3,                    N+S
*      F4.1,F4.2,I4,F4.2,F4.1,I3,I2)
```

```
READY
1 abbrown.nday.data
DSNAME='GCAGT.ABBROWN.NDAY.DATA'
        212 99***2427 8.012751126 8.8410.471.15714814994.56.5010057.00 3.3
        213141 692725 7.292922112 8.4712.581.13012913195.66.3612993.85 3.4
        214137 752499 8.262892 5611.2010.801.152 67 9497.76.4912658.01 3.3
```

DAY	BLR	MOD LOAD	IN SO_2	IN O_2	E_{O2} IN	OUT SO_2	OUT O_2	OUT CO_2	F_O	E_{O2}	E_{CO2}	EFF	pH	FLOW	LIME	OPAC.

EXHIBIT 7. NORTH AND SOUTH NO_x DAILY AVERAGE FILE FORMAT

NORTH AND SOUTH NO_x DAILY AVERAGES

```
FORMAT(1X,I3,I3,I4,F4.2,F4.1,I3,F5.2,I3,I3,I3,F5.2,                    NOx
*      I3,I3,I3,I3,I3)
```

```
DSNAME='GCAGT.ABBROWN.NOXDAY.DATA'
        212 9912465.3134.1183 8.01 34149**************************
        21314115785.5336.2200 7.29 49155**************************
        21413716106.0841.2203 8.26 34170**************************
        21511814786.3643.9183 8.81 32159**************************
        21613215845.8939.4208 8.24 39173**************************
        21711314166.2542.7197 8.58 36166**************************
        21814216846.4444.7216 7.67 40171221 7.25 67170170 75 56
```

DAY	BLR.	AIR FLOW	O_2 HTR.	EX AIR	N NO_x	N O_2	N CO	N E_{NO_x}	S NO_x	S O_2	S CO	S E_{NO_x}	E_{NO_x} AUG	ST CO	NO_x STD.

SECTION 3

CALIBRATION DATA EQUATIONS-- DAILY THREE-POINT DATA

MULTIPOINT CALIBRATION EQUATION

The calibration factors used for reducing the program data files are listed in Tables 1 through 7. Calibration equations were calculated using a ten-point routine which brackets a data collection period. For example, if a five-point calibration was conducted on days 1 and 8, the equation for reducing the monitoring data would be based on these ten points. The next bracket equation would use day 8 data and the next available multipoint.

The multipoint equations were determined using regression curve fitting techniques. For the inlet SO_2, outlet SO_2 and CO_2 analyzers, a parabolic model was used to define the response characteristics. The remaining analyzer calibration equations were determined using a linear model.

Resulting calibration equations are in the form

$$\text{ppm (or \%)} = a X^2 + bX + c$$

where X = the instrument response in volts.

a, b and c are the regression coefficients for the regression equations.

When $a = 0$, the equation is in the linear form and when $a \neq 0$, the equation is in the nonlinear or parabolic form.

TABLE 1. INLET SO_2 CALIBRATION EQUATIONS

Instrument	Begin Day	Begin Hr	End Day	End Hr	a	b	c
SO_2 inlet (Horiba)	209	9	215	13	-87.461496	1384.265	-2.312275
	215	13	221	9	-85.236052	1372.751	4.848138
	221	9	226	21	-87.986745	1389.405	2.81431
	226	21	235	10	-96.504982	1433.056	-12.531603
	235	10	242	13	-94.882129	1426.209	-10.406265
	242	13	253	12	-76.898583	1358.002	5.825579
	253	12	262	10	-76.545644	1350.719	6.697053
	262	10	270	10	-78.746470	1359.273	-1.171493
	270	10	281	23	-79.986069	1358.785	16.881223

TABLE 2. OUTLET SO_2 CALIBRATION EQUATIONS

Instrument	Begin Day	Begin Hr	End Day	End Hr	a	b	c
SO_2 outlet (DuPont) 0 - 1.0 V	209	9	215	13	753.995	1589.802	-31.397525
	215	13	221	20	-489.044	2095.226	-82.736731
	221	20	226	21	-531.738	2061.318	-131.766
	226	21	235	10	-570.696	2119.930	-174.005
	235	10	242	13	-683.324	2197.067	-177.662
	242	13	253	12	-436.866	1871.578	-15.48614
	253	12	262	10	-655.430	2040.664	38.871762
	262	10	270	10	-655.748	2053.727	10.290118
	270	10	281	23	-541.897	2064.064	-38.560457

TABLE 3. INLET NO_x CALIBRATION EQUATIONS

Instrument	Begin Day	Begin Hr	End Day	End Hr	a	b	c
NO_x Inlet (Thermo Electron 0 - 10 V	209	9	215	13	0.0	62.81541	3.32715
	215	13	221	10	0.0	56.38763	-15.28931
	221	10	226	21	0.0	55.08202	-15.65527
	226	21	235	10	0.0	55.45317	-7.53491
	235	10	242	13	0.0	54.88567	-0.58569
	242	13	253	10	0.0	51.08582	0.69775
	253	13	262	10	0.0	51.08582	0.69775
	262	10	270	16	0.0	53.58858	10.25439
	270	23	281	16	0.0	53.58858	10.25439

TABLE 4. INLET O_2 CALIBRATION EQUATIONS

Instrument	Begin Day	Begin Hr	End Day	End Hr	a	b^3	c^3
O_2 Inlet (MSA) 0 - 100 mV	209	9	215	13	0.0	146.849	-0.179446
	215	13	221	9	0.0	143.990	-0.111749
	221	9	226	21	0.0	143.852	-0.089462
	226	21	235	10	0.0	147.112	-0.089189
	235	10	242	13	0.0	147.556	-0.067575
	242	13	253	12	0.0	145.682	-0.048986
	253	12	262	10	0.0	144.896	-0.064604
	262	10	270	10	0.0	145.009	-0.065790
	270	10	281	23	0.0	144.756	-0.047458

TABLE 5. OUTLET O_2 CALIBRATION EQUATIONS

Instrument	Begin Day	Begin Hr	End Day	End Hr	a	b^4	c^4
O_2 Outlet	209	9	215	13	0.0	132.427	0.023776
(MSA)	215	13	221	20	0.0	131.491	-0.024717
0 - 100 mV	221	20	226	21	0.0	131.048	-0.00347844
	226	21	235	10	0.0	133.289	0.011877
	235	10	242	13	0.0	134.420	0.021982
	242	13	253	12	0.0	133.233	0.019275
	253	12	262	10	0.0	131.847	-0.00615248
	262	10	270	10	0.0	133.365	-0.00433301
	270	10	281	23	0.0	133.529	-0.022417

TABLE 6. INLET CO CALIBRATION EQUATIONS

Instrument	Begin Day	Begin Hr	End Day	End Hr	a	b	c
CO Inlet	209	9	215	13	0.0	101.55919	1.46660
(Horiba)	215	13	221	10	0.0	99.89203	5.28186
0 - 5 V	221	10	226	21	0.0	100.17580	8.26614
	226	21	235	10	0.0	102.61191	8.52080
	235	10	242	13	0.0	103.01671	7.64262
	242	13	253	10	0.0	103.89177	13.27122
	253	10	262	10	0.0	103.89177	13.27122
	262	10	270	16	0.0	108.32590	13.76160
	270	10	281	23	0.0	108.32590	13.76160

TABLE 7. OUTLET CO_2 CALIBRATION EQUATIONS

Instrument	Begin		End		a^5	b^5	c^5
	Day	Hr	Day	Hr			
CO_2 Outlet	209	9	215	13	-0.2832218	4.823354	0.218809
(Horiba)	215	13	221	20	-0.259493	4.822671	0.184517
0 - 5 V	221	20	226	21	-0.232306	4.627703	0.247248
	226	21	235	10	-0.207549	4.497947	0.273325
	235	10	242	13	-0.204045	4.433283	0.285770
	242	13	253	12	-0.202722	4.255496	0.330953
	253	12	262	10	-0.189397	4.208876	0.341589
	262	10	270	10	-0.183819	4.124568	0.300196
	270	10	281	23	-0.187764	4.118799	0.274412

DAILY THREE-POINT CALIBRATION DATA

Tables 8 through 14 contain the raw voltages, tank concentrations, day and hour completed, for each of the daily three-point calibrations. These calibration checks utilized three different gas concentrations corresponding to zero, 50 percent, and 90 percent of full scale. Substitution levels were used when gas supplies and/or tank pressures dictated alternate usage. The days are designated with the julian date and the hour the calibration was conducted in military time. The days proceed sequentially from day 206 to 281 for each analyzer. In cases where days seem to be missing, either a five-point calibration was conducted or no span gas was available to perform the calibration check. The values under the heading Span I normally correspond to 50 percent of full scale and the values under the heading Span II, 90 percent of full scale. Pure nitrogen was used as the zero gas for all instruments. These tables also present the tag value of the gas used over the indicated time period and identify alternate cylinder gas usage.

The daily calibration check consisted of substituting the span gas voltage response into the calibration equation and solving for the corresponding concentration value. This value was then compared to the cylinder tag value for difference. If the difference exceeded the control limits, a multipoint calibration was conducted.

TABLE 8. INLET SO_2 THREE POINT DATA

ZERO	SPAN I	SPAN II	DAY	HR
-0.0340	2.1990	4.6190	206	1210
-0.0180	2.2542	4.7515	207	1415
-0.0129	2.2844	4.7582	208	1430
-0.0142	2.2769	4.7827	210	900
-0.0232	2.2142	4.7880	211	1030
-0.0195	2.2747	4.7881	213	1000
-0.0167	2.2464	4.7436	214	915
-0.0210	2.2532	4.7667	216	1200
-0.0142	2.2341	4.6964	217	1130
0.0093	2.2960	4.7270	218	900
-0.0055	2.2160	4.6590	219	1137
-0.0191	2.2200	4.6760	220	1452
0.0148	2.2940	4.7240	221	1050
-0.0333	2.2400	4.6980	222	1220
0.0131	2.2530	4.7590	223	1220
-0.0069	2.1080	4.7780	224	1204
-0.0150	2.2700	4.7770	225	1230
-0.0041	2.2540	4.7280	226	1220
0.0043	2.2300	4.6920	227	1230
0.0013	2.2390	4.7040	228	1220
0.0013	2.3350	4.7160	229	1225
0.0009	2.2450	4.7260	230	1300
-0.0335	2.2667	4.7352	232	1000
-0.0044	2.2540	4.7392	233	1200
-0.0002	2.2490	4.7549	236	900
-0.0015	2.2568	3.3918	237	1000
-0.0006	2.2393	3.3786	238	900
-0.0024	2.2471	3.3771	239	1000
0.0022	2.2320	3.3712	240	900
-0.0031	2.2470	3.3790	241	1030
-0.0023	2.2250	3.3380	243	1200
-0.0083	2.2190	3.3370	244	900
0.0055	2.2440	5.0360	248	1230
0.0058	2.3840	5.0710	249	1230
-0.0015	2.2590	5.0520	250	1245
0.0041	2.2530	5.0380	251	1240
0.0009	2.2560	5.0540	252	1235
0.0036	2.2490	5.0440	254	1220
-0.0024	2.2230	4.9820	255	1700
0.0049	2.2370	5.0340	257	1300
0.0095	2.2659	5.0504	260	1200
0.0087	2.2414	5.0464	261	900
0.0420	2.2237	5.0170	263	1100
-0.0070	2.2338	5.0291	264	900
-0.0063	0.9585	5.0281	265	900
0.0071	0.9634	5.0829	267	1000
0.0087	0.9575	5.0734	268	900

SO_2 INLET

0 - 5 V
(Horiba
0 - 5000 ppm)

Span I

Day	to	Day	Conc (ppm)
206		264	2550
265		281	1295

Span II

Day	to	Day	Conc (ppm)
206		236	4560
237		244	3775
248		272	4860
273		281	3775

(continued)

TABLE 8 (continued)

ZERO	SPAN I	SPAN II	DAY	HR
0.0057	0.9551	5.0383	269	1000
0.0057	0.9551	5.0383	268	1000
0.0085	0.9695	5.0510	271	1000
0.0068	0.9478	5.0347	272	900
0.0046	0.9466	3.3582	273	1000
-0.0022	0.9540	3.3610	274	1240
0.0045	0.9741	3.3870	275	1245
0.0127	0.9464	3.3430	278	1000
0.0042	0.9508	3.3880	278	1100
0.0047	0.9222	3.2540	281	1800

TABLE 9. OUTLET SO_2 THREE POINT DATA

ZERO	SPAN I	SPAN II	DAY	HR
-0.0458	0.2777	0.4986	206	1210
0.0427	0.2887	0.5184	207	1415
0.0274	0.2877	0.5026	208	1430
0.0285	0.2872	0.5066	210	900
0.0267	0.2940	0.5113	211	1030
0.0186	0.2780	0.5045	212	1000
0.0186	0.2780	0.5045	213	1000
0.0268	0.2743	0.4931	214	915
0.0305	0.2900	0.5051	216	1200
0.0303	0.2844	0.5020	217	1130
0.0358	0.2914	0.5122	218	900
0.0430	0.3010	0.5215	219	1137
0.0473	0.3021	0.5698	220	1452
0.0520	0.3118	0.5761	221	1050
0.0572	0.3152	0.5842	222	1220
0.0636	0.3047	0.5737	223	1220
0.0659	0.3029	0.5574	224	1204
0.0726	0.3350	0.6002	225	1230
0.0779	0.2842	0.5114	226	1220
0.0828	0.3413	0.6035	227	1230
0.0789	0.3133	0.5812	228	1220
0.0736	0.3334	0.6046	229	1225
0.0619	0.3054	0.5607	230	1300
0.0900	0.3476	0.4690	232	1000
0.0846	0.3418	0.6093	233	1200
0.0812	0.3380	0.6068	236	900
0.0818	0.3403	0.6077	237	1000
0.0860	0.3371	0.6035	238	900
0.0848	0.3425	0.6019	239	1000
0.0821	0.3099	0.5624	240	900
0.0786	0.3324	0.6010	241	900
0.0685	0.3300	0.5880	243	1200
0.0790	0.3280	0.5970	244	900
0.0690	0.3282	0.5869	246	1200
0.0697	0.3258	0.5912	247	1220
0.0671	0.3219	0.5995	248	1230
0.0564	0.2518	0.5408	249	1230
0.0375	0.3129	0.5704	250	1245
0.0137	0.2658	0.5380	251	1240
-0.0110	0.2428	0.5160	252	1235
-0.0205	0.2401	0.5040	253	1500
-0.0108	0.2398	0.5018	254	1220
-0.0230	0.2417	0.5024	257	1300
-0.0273	0.2402	0.4990	260	1200
-0.0194	0.2409	0.5066	261	900

SO_2 OUTLET

0 - 1 V
(DuPont
0 - 1000 ppm)

Span I

Day	to	Day	Conc (ppm)
206		223	493
224		264	495
265		281	248

Span II

Day	to	Day	Conc (ppm)
206		219	980
220		264	910
265		279	688

(continued)

TABLE 9 (continued)

ZERO	SPAN I	SPAN II	DAY	HR
-0.0212	0.2473	0.5090	263	1100
-0.0256	0.2288	0.4853	264	900
-0.0095	0.1112	0.3400	265	900
-0.0042	0.1202	0.3558	267	1000
0.0048	0.1354	0.3620	268	900
0.0058	0.1342	0.3596	269	1000
0.0058	0.1342	0.3596	269	1000
0.0121	0.1417	0.3673	271	1000
0.0121	0.1422	0.3686	272	900
0.0119	0.1411	0.3709	273	1000
0.0152	0.1474	0.3820	274	1240
0.0149	0.1548	0.3766	275	1245
0.0188	0.1390	0.3775	278	1000
0.0275	0.1417	0.3823	279	1100
0.0288	0.1607	.9999[a]	281	1600

TABLE 10. OUTLET NO_x THREE POINT DATA

ZERO	SPAN I	SPAN II	DAY	HR
-0.0280	4.5460	8.2280	206	1210
-0.0230	4.8307	8.5050	207	1415
-0.0218	4.4785	8.2188	208	1430
-0.0075	4.9360	9.3005	210	900
0.0437	4.5165	8.5823	211	1030
-0.0254	4.4426	8.1984	212	1000
-0.0180	4.7475	8.6455	213	1000
-0.0135	5.1921	9.4008	214	915
0.0031	6.1349	11.1454	216	1200
0.0088	6.1725	11.2056	217	1130
0.0063	6.2350	10.7770	218	900
0.0070	6.1520	11.1980	219	1137
0.0048	6.3210	11.5170	220	1452
0.0116	6.3610	11.4820	221	1050
0.0049	6.2400	11.3260	222	1220
0.0074	6.3620	11.5340	223	1220
-0.0191	6.7500	8.7780	223	1200
0.0031	6.4220	11.4450	224	1204
-0.0210	5.9470	10.7750	225	1230
0.0000	6.0260	10.7640	226	1220
0.0010	6.4510	11.7220	227	1230
0.0000	6.2050	11.2800	228	1220
0.0048	6.3340	9.0810	229	1225
0.0031	6.3481	9.1440	230	1300
-0.0147	6.1928	9.0163	232	1000
-0.0191	6.0750	.9999[a]	233	1200
-0.0123	6.1305	8.9770	236	900
-0.0184	5.7284	8.2209	237	1000
-0.0156	5.9142	8.5028	238	900
-0.0174	6.1257	8.8349	239	1000
0.0102	6.1086	9.1230	240	900
-0.0072	6.3150	9.1370	241	900
0.0133	6.1270	8.8670	243	1200
0.0163	6.3470	9.1950	244	800
-0.0020	6.9210	9.9790	248	1230
-0.0116	6.6050	9.3320	249	1230
0.0102	6.4000	9.0150	250	1245
-0.0106	6.4710	9.3840	251	1240
-0.0085	6.4190	9.2720	252	1235
-0.0102	6.3930	9.1760	253	1500
-0.0005	6.3800	9.3130	254	1220
0.0058	6.3820	9.2270	255	1700
-0.0177	6.3250	9.1380	257	1300
-0.0044	6.6820	9.7089	260	1200
-0.0010	6.5211	9.3972	261	900
-0.0068	7.3916	10.6945	263	1100

NO_x OUTLET

0 - 10 V
(Thermo Electron
0 - 750 ppm)

Span I

Day	to	Day	Conc (ppm)
206		230	329
232		264	342
265		272	502
278		281	157

Span II

Day	to	Day	Conc (ppm)
206		228	625
229		272	502
278		281	571

(continued)

TABLE 10 (continued)

ZERO	SPAN I	SPAN II	DAY	HR
0.0010	8.6009	9.6028	264	900
-0.0010	9.4118	9.4118	265	900
-0.0010	9.9999	9.4118	265	900
-0.0080	8.5557	8.5557	267	1000
-0.0047	8.5291	8.5291	268	900
-0.0080	8.5935	8.5935	269	1000
-0.0051	8.9582	8.9582	271	1000
-0.0038	8.5598	8.5598	272	800
0.0202	2.5050	9.1828	278	1000
-0.0337	2.3710	8.8380	278	1100
-0.0111	2.4390	8.9170	281	1600

TABLE 11. INLET O_2 THREE POINT DATA

ZERO	SPAN I	SPAN II	DAY	HR
0.0008	0.0549	0.0844	206	1210
0.0003	0.0536	0.0936	207	1415
0.0001	0.0538	0.0932	208	1430
0.0002	0.0534	0.0929	210	900
0.0003	0.0534	0.0930	211	1030
0.0001	0.0540	0.0940	213	1000
0.0003	0.0533	0.0929	214	915
0.0002	0.0532	0.0970	216	1200
0.0002	0.0531	0.0924	217	1130
0.0002	0.0526	0.0915	218	900
0.0002	0.0523	0.0907	219	1137
0.0003	0.0527	0.0917	220	1452
0.0003	0.0534	0.0928	221	1050
0.0002	0.0537	0.0934	222	1220
0.0005	0.0532	0.0924	223	1220
0.0002	0.0575	0.0932	224	1204
0.0003	0.0535	0.0932	225	1230
0.0002	0.0545	0.0949	226	1220
0.0002	0.0528	0.0918	227	1230
0.0002	0.0531	0.0923	228	1220
0.0002	0.0530	0.0923	229	1225
0.0002	0.0534	0.0927	230	1300
0.0009	0.0532	0.0927	232	1000
0.0001	0.0532	0.0929	233	1200
0.0001	0.0532	0.0929	236	900
0.0001	0.0535	0.0732	237	1000
0.0001	0.0529	0.0727	238	900
0.0002	0.0529	0.0726	239	1000
0.0003	0.0526	0.0721	240	900
0.0002	0.0528	0.0723	241	900
0.0003	0.0552	0.1000	243	1200
0.0003	0.0521	0.0715	244	900
0.0002	0.0529	0.0921	248	1230
0.0001	0.0536	0.0934	249	1230
0.0002	0.0542	0.0943	250	1245
0.0002	0.0533	0.0926	251	1240
0.0002	0.0571	0.1035	252	1235
0.0002	0.0525	0.0930	254	1220
0.0002	0.0531	0.0924	255	1700
0.0002	0.0537	0.0936	257	1300
0.0002	0.0533	0.0918	260	1200
0.0003	0.0531	0.0922	261	900
0.0004	0.0528	0.0915	263	1100
0.0003	0.0527	0.0913	264	900
0.0003	0.0264	.9999[a]	265	900

O_2 INLET

0 - 100 mV
(MSA
0 - 15%)

Span I

Day	to	Day	Conc (%)
206		223	7.54
224		264	7.55
265			No gas
267		281	3.72

Span II

Day	to	Day	Conc (%)
206		236	13.6
237		244	10.55
248		272	13.4
273		281	10.55

(continued)

TABLE 11 (continued)

ZERO	SPAN I	SPAN II	DAY	HR
0.0002	0.0268	0.0932	267	1000
0.0002	0.0267	0.0928	268	900
0.0001	0.0266	0.0925	269	1000
0.0002	0.0267	0.0928	271	1000
0.0002	0.0266	0.0924	272	900
0.0002	0.0266	0.0729	273	1000
0.0001	0.0263	0.0726	274	1240
0.0003	0.0265	0.0724	275	1245
0.0002	0.0267	0.0733	278	1000
0.0001	0.0268	0.0735	279	1100
0.0002	0.0259	0.0708	281	1600

TABLE 12. OUTLET O_2 THREE POINT DATA

ZERO	SPAN I	SPAN II	DAY	HR
0.0006	0.0563	0.1014	206	1210
0.0011	0.0552	0.1011	207	1415
0.0001	0.0568	0.1013	208	1430
0.0003	0.0564	0.1015	210	900
0.0002	0.0564	0.1015	211	1030
0.0002	0.0589	0.1020	212	1000
0.0001	0.0571	0.1028	213	1000
0.0003	0.0559	0.1009	214	915
0.0006	0.0560	0.1013	216	1200
0.0005	0.0561	0.1009	217	1130
0.0002	0.0560	0.1013	218	900
0.0002	0.0553	0.0987	219	1137
0.0005	0.0557	0.1000	220	1452
0.0009	0.0561	0.0994	221	1050
0.0003	0.0567	0.1010	222	1220
0.0007	0.0562	0.0990	223	1220
0.0002	0.0584	0.1044	224	1204
0.0003	0.0573	0.1034	225	1230
0.0002	0.0576	0.1040	226	1220
0.0005	0.0553	0.1004	227	1230
0.0002	0.0556	0.1011	228	1220
0.0003	0.0555	0.1011	229	1225
0.0002	0.0561	0.1017	230	1300
0.0002	0.0556	0.1013	232	1000
0.0002	0.0557	0.1014	233	1200
0.0002	0.0556	0.1015	236	900
0.0001	0.0557	0.1013	237	1000
0.0003	0.0548	0.1011	238	900
0.0002	0.0555	0.1007	239	1000
0.0003	0.0547	0.0992	240	900
0.0002	0.0555	0.1009	241	900
0.0002	0.0552	0.1000	243	1200
0.0003	0.0551	0.1003	244	900
0.0003	0.0555	0.1007	246	1200
0.0003	0.0556	0.1009	247	1220
0.0003	0.0574	.9999[a]	248	1230
0.0006	0.0569	0.1022	249	1230
0.0003	0.0617	0.1115	250	1245
0.0002	0.0562	0.1022	251	1240
0.0003	0.0571	0.1035	252	1235
0.0002	0.0566	0.1027	253	1500
0.0002	0.0577	0.1040	254	1220
0.0002	0.0573	0.1036	257	1300
0.0003	0.0560	0.1013	260	1200
0.0003	0.0561	0.1016	261	900

O_2 OUTLET

0 - 100 mV
(MSA
0 - 15%)

Span I

Day	to	Day	Conc. (%)
206		223	7.45
224		264	7.43
265		281	3.72

Span II

Day	to	Day	Conc. (%)
206		210	13.4
220		264	13.5
265		279	10.45

(continued)

TABLE 12 (continued)

ZERO	SPAN I	SPAN II	DAY	HR
0.0008	0.0552	0.1005	263	1100
0.0004	0.0552	0.1002	264	900
0.0004	0.0276	0.0775	265	900
0.0004	0.0273	0.0786	267	1000
0.0004	0.0277	0.0780	268	900
0.0004	0.0274	0.0773	269	1000
0.0004	0.0275	0.0781	271	1000
0.0003	0.0276	0.0778	272	900
0.0004	0.0273	0.0778	273	1000
0.0003	0.0264	0.0780	274	1240
0.0004	0.0281	0.0787	275	1245
0.0003	0.0277	0.0784	278	1000
0.0003	0.0262	0.0781[b]	279	1100
0.0003	0.0278	.9999	281	1600

TABLE 13. INLET CO THREE POINT DATA

ZERO	SPAN I	SPAN II	DAY	HR
0.0067	2.5270	4.4520	206	1210
0.0110	2.5465	4.4770	207	1415
0.3225	2.5852	4.5282	208	1430
-0.0109	2.5446	4.4890	210	900
-0.0010	2.5363	4.4793	211	1030
-0.0094	2.5373	4.4853	212	1000
-0.0222	2.5209	4.4632	213	1000
-0.0150	2.5148	4.4436	214	915
-0.0192	2.5013	4.4326	216	1200
-0.0260	2.4947	4.4223	217	1130
0.0418	2.4570	4.3720	218	900
0.0404	2.4670	4.3730	219	1137
-0.0303	2.4810	4.3850	220	1452
-0.0254	2.4860	4.4060	221	1050
-0.0446	2.4860	4.4140	222	1220
-0.0337	2.5040	4.4380	223	1220
-0.0427	2.4820	4.4080	224	1204
0.0377	2.4755	4.4070	225	1230
-0.0349	2.4660	4.3900	226	1220
-0.0656	2.4270	4.3470	227	1230
-0.0588	2.4370	4.3520	228	1220
-0.0556	2.4610	3.5690	229	1225
-0.0604	2.4480	3.5720	230	1300
-0.0537	2.4473	3.5731	232	1000
-0.0666	2.4424	3.5640	233	1200
-0.0715	2.4290	3.5610	236	900
-0.0681	2.4309	3.5650	237	1000
-0.0694	2.3708	3.4449	238	900
0.0701	2.4253	3.5408	239	1000
-0.0465	2.4138	3.5386	240	900
-0.0843	2.4100	3.5100	241	900
-0.0245	2.5510	5.3180	243	1200
-0.0890	2.3620	3.4690	244	900
-0.1195	2.3520	3.4670	248	1230
-0.1221	2.3660	3.4310	249	1230
-0.1234	2.3600	3.4730	250	1245
-0.1085	2.3520	3.4760	251	1240
-0.1150	2.3560	3.4670	252	1235
-0.1315	2.3230	3.4320	254	1220
-0.1450	2.3280	3.4250	255	1700
-0.1494	2.3100	3.4240	257	1300
-0.1488	2.2978	3.4117	260	1200
0.1521	2.2942	3.4064	261	900
-0.1822	2.2666	3.3699	263	1100
-0.1574	2.2650	3.3705	264	900

CO INLET

0 - 5 V
(Horiba
0 - 500 ppm)

Span I

Day	to	Day	Conc (ppm)
206		264	256
267		272	370
278		281	111

Span II

Day	to	Day	Conc (ppm)
206		228	450
229		272	370
278		281	451

(continued)

TABLE 13 (continued)

ZERO	SPAN I	SPAN II	DAY	HR
-0.1663	9.9999[a]	3.3707	265	900
-0.1764	3.3991	3.3991	267	1000
-0.1792	3.3808	3.3808	268	900
-0.1701	3.3641	3.3641	269	1000
-0.1790	3.3755	3.3755	271	1000
-0.1732	3.3541	3.3541	272	900
-0.2183	0.9509	4.0680	278	1000
-0.1845	0.9990	4.1310	279	1100
-0.1227	0.8450	3.9620	281	1600

TABLE 14. OUTLET CO_2 THREE POINT DATA

ZERO	SPAN I	SPAN II	DAY	HR
-0.0180	2.3330	4.7430	206	1210
-0.0120	2.3870	4.7750	207	1415
-0.0071	2.3985	4.8091	208	1430
-0.0043	2.3981	4.8484	210	900
-0.0064	2.4037	4.8521	211	1030
-0.0075	2.4670	4.8969	212	1000
-0.0075	2.4510	4.9709	213	1000
-0.0112	2.4148	4.9067	214	915
-0.0071	2.4165	4.9194	216	1200
-0.0080	2.4290	4.9502	217	1130
-0.0322	2.4000	4.9090	219	1137
-0.0116	2.4300	4.9290	220	1452
-0.0115	2.4700	5.0240	221	1050
-0.0123	2.4940	5.0820	222	1220
-0.0138	2.5080	5.1120	223	1220
-0.0117	2.5290	5.1980	224	1204
-0.0157	2.5050	5.1550	225	1230
-0.0101	2.5110	5.1860	226	1220
-0.0154	2.4750	5.0990	227	1230
-0.0319	2.4800	5.1290	228	1220
-0.0138	2.5020	5.1770	229	1225
-0.0148	2.5180	5.2100	230	1300
-0.0212	2.5169	5.2213	232	1000
-0.0206	2.5360	5.2640	233	1200
-0.0204	2.5588	5.3396	236	900
-0.0220	2.5570	5.3210	237	1000
-0.0225	2.5533	5.3249	238	900
-0.0213	2.5494	5.3112	239	1000
-0.0221	2.5520	5.3288	240	900
-0.0223	2.5720	5.3000	241	900
-0.0260	2.5920	5.4200	243	1200
-0.0254	2.5570	5.3380	244	800
-0.0260	2.5920	5.4200	246	1200
-0.0271	2.6070	5.4500	247	1220
-0.0272	2.6780	5.6310	248	1230
-0.0278	2.5780	5.2850	249	1230
-0.0264	2.7510	5.7850	250	1245
-0.0281	2.6500	5.5730	251	1240
-0.0295	2.6760	5.6350	252	1235
-0.0289	2.6640	.9898	253	1500
-0.0305	2.7090	5.7070	254	1220
-0.0309	2.6760	5.6420	257	1300
-0.0325	2.7272	5.7571	260	1200
0.0343	2.7427	5.8010	261	800
-0.0317	2.6993	5.7276	263	1100

CO_2 OUTLET

0 - 5 V
(Horiba
0 - 21%)

Span I

Day	to	Day	Conc (ppm)
206		223	10.45
224		264	10.25
265		279	5.11

Span II

Day	to	Day	Conc (ppm)
206		264	18.3
265		279	14.2

(continued)

TABLE 14 (continued)

ZERO	SPAN I	SPAN II	DAY	HR
-0.0368	2.7091	5.7401	264	900
-0.0385	1.1335	4.1250	265	900
-0.0390	1.1620	4.2246	267	1000
-0.0401	1.1573	4.2015	268	800
-0.0383	1.1484	4.1832	269	1000
-0.0400	1.1768	4.2758	271	1000
-0.0396	1.1677	4.2479	272	900
-0.0418	1.1642	4.2376	273	1000
-0.0401	1.1370	4.2560	274	1240
-0.0414	1.1850	4.3190	275	1245
-0.0418	1.1840	4.3450	278	1100
-0.0412	1.1970	.9888	281	1600

[a] No calibration conducted

[b] No calibration gas

SECTION 4

PERFORMANCE SPECIFICATION TESTS

The performance specifications tests were conducted during the period of July 31 to August 13, 1981. During the beginning of September and near the end of the monitoring program, the abbreviated relative accuracy tests were repeated.

Data from all the performance specifications tests are contained in the following subsections.

24-HOUR ZERO AND CALIBRATION DRIFT

The 24-hour zero and calibration drift tests were conducted during the period of August 4-10, 1981. Table 15 contains a summary of the drift tests and the pertinent calculations data follows in Tables 16 through 22. Those entries in Table 15 designated by an "a" exceeded the allowable performance criteria. It should be noted that the outlet SO_2 analyzer has the capability to operate in the range of 0 to 3000 ppm. Since the 0 to 1000 ppm range is selected by a resistance bridge, the noise encountered in the 0 to 3000 ppm range is merely amplified by a factor of 3 when operated in the 0 to 1000 ppm range. This is most likely to cause of the drift exceedance.

TABLE 15. 24-HOUR ZERO AND CALIBRATION DRIFT SUMMARY

Parameter	Zero drift (%)	Calibration drift (%)
Inlet SO_2 (Horiba)	0.5	1.1
Outlet SO_2	1.6	4.9[a]
Inlet O_2	0.1 (% O_2)	0.1 (% O_2)
Outlet O_2	0.1 (% O_2)	0.2 (% O_2)
Inlet NO	0.1	3.3[a]
Inlet CO	0.9	1.3
Outlet CO_2	0.2 (% CO_2)	0.3 (% CO_2)

[a]Exceeds performance criteria

TABLE 16. INLET SO_2 DRIFT DATA

Data set no.	Date	Time Begin	Time End	Zero Rdg Init. A	Zero Rdg Fin. B	Zero drift C=B-A	Hi-level Rdg Init. D	Hi-level Rdg Fin. E	Span drift F=E-D	Calib. drift G=F-C
1	8/4	9 AM	10 AM	245	215	-30	4828	4886	58	88
2	8/5	9AM	10AM	215	222	7	4886	4818	-68	-75
3	8/6	9AM	10AM	222	245	23	4818	4847	29	6
4	8/7	9AM	10 AM	245	230	-15	4847	4779	-68	-53
5	8/8	9AM	10AM	230	217	-13	4779	4799	0	13
6	8/9	9AM	10AM	217	221	4	4799	4838	39	35
7	8/10	9AM	10AM	221	203	-18	4838	4818	-20	-2
Arithmetic Mean (Eq. 2-1)						6				1.71
Confidence Interval (Eq. 2-2)						16.71				50.08
					Zero drift	.5%		Calibration drift[a]		1.1%

TABLE 17. O_2 INLET DRIFT DATA

Data set no.	Date	Time Begin	Time End	Zero Rdg Init. A	Zero Rdg Fin. B	Zero drift C=B-A	Hi-level Rdg Init. D	Hi-level Rdg Fin. E	Span drift F=E-D	Calib. drift G=F-C
1	8/4	9AM	10AM	0.1	0.1	0	13.5	14.1	.6	.6
2	8/5	9AM	10AM	0.1	0.1	0	14.1	13.5	-.6	-.6
3	8/6	9AM	10AM	0.1	0.1	0	13.5	13.3	-.2	-.2
4	8/7	9AM	10 AM	0.1	0.1	0	13.3	13.2	-.1	-.1
5	8/8	9AM	10 AM	0.1	+0.1	-.2	13.2	13.4	.2	.4
6	8/9	9AM	10 AM	-0.1	+0.1	0	13.4	13.5	.1	.1
7	8/10	9AM	10 AM	-0.1	0.1	.2	13.5	13.6	.1	-.1
Arithmetic Mean (Eq. 2-1)						0				.01
Confidence Interval (Eq. 2-2)						.11				.12
					Zero drift	.11%		Calibration drift[a]		.13%

TABLE 18. INLET NO_x DRIFT DATA

Data set no.	Date	Time Begin	Time End	Zero Init. A	Rdg Fin. B	Zero drift C=B-A	Hi-level Rdg Init. D	Hi-level Rdg Fin. E	Span drift F=E-D	Calib. drift G=F-C
1	8/4	9AM	10AM	+4.1	-3.1	~~-7.2~~ -4.9	625	654	29	28
2	8/5	9AM	10AM	+3.1	-2.8	~~-5.9~~ -0.3	654	660	6	5.7
3	8/6	9AM	10AM	+2.8	-2.9	~~-5.7~~ -0.1	660	636	-24	-23.9
4	8/7	9AM	10AM	+2.9	-2.9	~~-5.8~~ 0	636	660	24	24
5	8/8	9PM	10PM	+2.9	-3.0	~~-5.9~~ -0.1	660	684	24	24.1
6	8/9	9AM	10AM	+3.0	-2.6	0.4	684	678	-6	-6.4
7	8/10	9AM	10AM	+2.6	-3.0	-0.4	678	666	-12	-11.6
Arithmetic Mean (Eq. 2-1)						0.16				5.7
Confidence Interval (Eq. 2-2)						0.43				18.9
Zero drift						0.1%	Calibration drift[a]			3.3

TABLE 19. INLET CO DRIFT DATA

Data set no.	Date	Time Begin	Time End	Zero Init. A	Rdg Fin. B	Zero drift C=B-A	Hi-level Rdg Init. D	Hi-level Rdg Fin. E	Span drift F=E-D	Calib. drift G=F-C
1	8/4	9AM	10AM	-3.6	0.1	+3.7	450	454	4	.3
2	8/5	9AM	10AM	0.1	-0.6	-0.7	454	453	-1	-.3
3	8/6	9AM	10AM	-0.6	6.3	6.9	453	448	-5	-11.9
4	8/7	9AM	10AM	6.3	+6.1	-0.2	448	448	0	.2
5	8/8	9AM	10AM	6.1	-1.0	-7.1	448	450	2	9.1
6	8/9	9AM	10AM	-1.0	-0.5	0.5	450	452	2	1.5
7	8/10	9AM	10AM	-0.5	-2.6	-2.1	452	452	0	2.1
Arithmetic Mean (Eq. 2-1)						.14				.14
Confidence Interval (Eq. 2-2)						4.08				5.24
Zero drift						.94%	Calibration drift[a]			1.31%

TABLE 20. OUTLET SO_2 DRIFT DATA

Data set no.	Date	Time Begin	Time End	Zero Rdg Init. A	Zero Rdg Fin. B	Zero drift C=B-A	Hi-level Rdg Init. D	Hi-level Rdg Fin. E	Span drift F=E-D	Calib. drift G=F-C
1	8/4	9 AM	10 AM	7	1.2	18.2	949	948	-1	-19.2
2	8/5	9 AM	10 AM	1.2	0.8	-.4	948	942	-6	5.6
3	8/6	9 AM	10 AM	0.8	12	11.2	942	961	19	7.2
4	8/7	9 AM	10 AM	12	26	14	961	981	20	6
5	8/8	9 AM	10 AM	26	34	8	981	1077	96	88
6	8/9	9 AM	10 AM	34	44	10	1077	1089	12	2
7	8/10	9 AM	10 AM	44	54	10	1089	1105	16	6
Arithmetic Mean (Eq. 2-1)						10.14				13.66
Confidence Interval (Eq. 2-2)						5.3				34.33
Zero drift						1.6%	Calibration drift[a]			4.9%

TABLE 21. OUTLET O_2 DRIFT DATA

Data set no.	Date	Time Begin	Time End	Zero Rdg Init. A	Zero Rdg Fin. B	Zero drift C=B-A	Hi-level Rdg Init. D	Hi-level Rdg Fin. E	Span drift F=E-D	Calib. drift G=F-C
1	8/4	9 AM	10 AM	.00	.06	.06	13.4	13.5	.1	.04
2	8/5	9 AM	10 AM	.06	.05	-.01	13.5	13.4	-.1	-.09
3	8/6	9 AM	10 AM	.05	.01	-.04	13.4	13.5	.1	.14
4	8/7	9 AM	10 AM	.01	.01	0	13.5	13.1	-.4	-.4
5	8/8	9 AM	10 AM	.01	.05	.04	13.1	13.3	.2	.16
6	8/9	9 AM	10 AM	.05	.10	.05	13.3	13.2	-.1	-.15
7	8/10	9 AM	10 AM	.10	.02	-.08	13.2	13.4	.2	.28
Arithmetic Mean (Eq. 2-1)						.003				.003
Confidence Interval (Eq. 2-2)						.047				.217
Zero drift						.05%	Calibration drift[a]			.21%

TABLE 22. CO_2 OUTLET DRIFT DATA

Data set no.	Date	Time Begin	Time End	Zero Rdg Init. A	Zero Rdg Fin. B	Zero drift C=B-A	Hi-level Rdg Init. D	Hi-level Rdg Fin. E	Span drift F=E-D	Calib. drift G=F-C
1	8/4	9AM	PAM	1.1	0.8	-.3	18.8	19.0	.2	.5
2	8/5	9AM	PAM	0.8	0.8	0	19.0	19.0	0	0
3	8/6	9AM	PAM	0.8	0.9	.1	19.0	19.1	.1	0
4	8/7	9AM	PAM	0.9	0.8	-.1	19.1	18.9	-.2	-.1
5	8/8	9AM	PAM	0.8	0.8	0	18.9	19.0	.1	.1
6	8/9	9AM	PAM	0.8	0.8	0	19.0	19.3	.3	.3
7	8/10	9AM	PAM	0.8	0.8	0	19.3	19.5	.2	.2
Arithmetic Mean (Eq. 2-1)						.04				.14
Confidence Interval (Eq. 2-2)						.12				.19
					Zero drift	.16%		Calibration drift[a]		.33%

CALIBRATION ERROR

The calibration error test summary is contained in Table 23 and the data used to calculate each is contained in Tables 24 through 30. Calibration error was calculated by first constructing a five point calibration curve in the form of a linear equation for the inlet and outlet O_2, NO_x, and CO analyzers. The calibrations for the inlet SO_2, outlet SO_2 and the CO_2 are in the form of a parabolic equation.

Data obtained from the multiple analyses of the span gases were converted to engineering units using the appropriate calibration equation. Mid scale and high scale calibration errors were then calculated according to the October 10, 1979 Federal Register protocol.

TABLE 23. CALIBRATION ERROR SUMMARY

Parameter	Mid (%)	High (%)
Inlet SO_2 (Horiba)	4.1	0.3
Outlet SO_2	9.4*	3.6
Inlet O_2	1.5	1.5
Outlet O_2	1.3	3.4
Outlet CO_2	1.7	3.8
Inlet NO_x	1.6	5.6*
Inlet CO	3.2	2.5

*Denotes exceeded Performance Specifications Test criteria.

TABLE 24. INLET SO_2 CALIBRATION ERROR DATA

Parameter SO_2 Location INLET

Analyzer Manufacturer Thermo Environ. SO_2 Model # 43 Serial # 43-21-68-284

Mid (50%) 2550 ppm High (90%) 4560 ppm

Run #	Calibration Gas Concentration, ppm	Measurement System Reading, ppm	Differences,[1] ppm
1	Ø	8.466	-8.466
2	2550	2640.9	-90.9 -
3	4560	4571.6	-11.6 +
4	Ø	5.743	-5.74
5	4560	4564.1	-4.1 +
6	2550	2652.6	-102.6 -
7	Ø	8.057	-8.057
8	2550	2639.8	-89.8 -
9	4560	4568.2	-8.2 +
10	Ø	7.65	-265
11	4560	4562.4	-2.4 +
12	2550	2652.6	-102.6 -
13	Ø	15.95	-15.95
14	2550	2630.9	-80.9 -
15	4560	4561.8	-1.8 +

	Mid	High
	93.1	5.6
	±11.5	±6.
	4.1 %	0.3

TABLE 25. OUTLET SO_2 CALIBRATION ERROR DATA

Parameter SO_2 Location _____

Analyzer Manufacturer Dupont OUTLET Model # 400 Serial # _____

Mid (50%) 493 ppm High (90%) 910 ppm

Run #	Calibration Gas Concentration, ppm	Measurement System Reading, ppm	Differences,[1] ppm
1	Ø	52.3	-52.3
2	493	489.3	3.7 -
3	910	880.2	29.8 +
4	Ø	54.2	-54.2
5	910	882.5	27.5 +
6	493	511.8	-18.8 -
7	Ø	52.5	-52.5
8	493	517.1	-24.1 -
9	910	916.8	-6.8 +
10	Ø	49.9	-49.9
11	910	923.Ø	-13.Ø +
12	493	535.7	-42.7 -
13	Ø	56.3	-56.3
14	493	530.3	-37.3 -
15	910	934.1	-24.1 +

	Mid	High
	-23.8	26
	+22.6	+30
	9.4 %	3.6

TABLE 26. INLET O_2 CALIBRATION ERROR DATA

Run no.	Calibration gas concentration[a] ppm	Measurement system reading ppm	Arithmetic differences ppm	
	A	B	A-B	
			Mid	High
1	0	—		
2	7.55	7.64	-.09	—
3	13.6	13.4	~~0.2~~	0.2
4	0	—	—	—
5	13.6	13.4	—	0.2
6	7.55	7.66	-.11	—
7	0	—	—	—
8	7.55	7.64	-.09	—
9	13.6	13.4	—	0.2
10	0	—	—	—
11	13.6	13.4		0.2
12	7.55	7.66	-.11	—
13	0	—	—	—
14	7.55	7.66	-.11	—
15	13.6	13.4	—	0.2
Arithmetic Mean (Eq. 2-1) =			-0.10	0.2
Confidence Interval (Eq. 2-2) =			0.01	0
Calibration Error (Eq. 2-3)[b] =			1.5%	1.5%

TABLE 27. OUTLET O_2 CALIBRATION ERROR DATA

Run no.	Calibration gas concentration[a] ppm	Measurement system reading ppm	Arithmetic differences ppm	
	A	B	A-B	
			Mid	High
1	0	0.70	—	—
2	7.43	7.35	.08	—
3	13.5	13.3	—	0.2
4	0	0.96	—	—
5	13.5	13.2	—	0.3
6	7.43	7.36	.07	—
7	0	0.007	—	—
8	7.43	7.33	0.1	—
9	13.5	13.3	—	0.2
10	0	0.08	—	—
11	13.5	13.5	—	0
12	7.43	7.37	0.06	—
13	0	0.10	—	—
14	7.43	7.33	0.10	—
15	13.5	13.3	—	0.2
Arithmetic Mean (Eq. 2-1) =			.08	.18
Confidence Interval (Eq. 2-2) =			.02	.28
Calibration Error (Eq. 2-3)[b] =			1.3	3.4

TABLE 28. OUTLET CO_2 CALIBRATION ERROR DATA

Parameter CO_2 Location _____

Analyzer Manufacturer HORIBA OUTLET Model # PIR200 Serial # _____

Mid (50%) 10.45 ppm High (90%) 18.3 ppm

Run #	Calibration Gas Concentration, ppm	Measurement System Reading, ppm	Differences,[1] ppm
1	Ø	0.150 ✓	-0.150
2	10.45	10.29 ✓	0.16 -
3	18.3	17.64 ✓	0.66 +
4	Ø	0.161 ✓	-0.161
5	18.3	17.61 ✓	0.69 +
6	10.45	10.30 ✓	0.15 -
7	Ø	0.166 ✓	-0.166
8	10.45	10.28 ✓	0.17 -
9	18.3	17.63 ✓	0.67 +
10	Ø	0.162 ✓	-0.162
11	18.3	17.61 ✓	0.69 +
12	10.45	10.29 ✓	0.16 -
13	Ø	0.163 ✓	-0.163
14	10.45	10.28 ✓	0.17 -
15	18.3	17.61 ✓	0.69 +

	Mid	High
	.162	0.1
	+.0104	+0.
	1.65%	3.8

TABLE 29. INLET NO_x CALIBRATION ERROR DATA

Run no.	Calibration gas concentration[a] ppm	Measurement system reading ppm	Arithmetic differences ppm	
	A	B	A-B	
			Mid	High
1	0	-2.24		
2	329	331.7	-2.7	
3	625	599.9		25.1
4	0	-1.32		
5	625	601.9		23.1
6	329	330.7	-1.7	
7	0	-1.76		
8	329	327.5	1.5	
9	625	601.7		23.3
10	0	-1.38		
11	625	605.9		19.1
12	329	328.5	0.5	
13	0	-1.38		
14	329	334.8	-5.8	
15	625	587.4		37.6
| Arithmetic Mean | (Eq. 2-1) =			1.6	25.6
Confidence Interval (Eq. 2-2) =			3.6	8.7
Calibration Error (Eq. 2-3)[b] =			1.6%	5.6%

TABLE 30. INLET CO CALIBRATION ERROR DATA

Run no.	Calibration gas concentration[a], ppm	Measurement system reading ppm	Arithmetic differences ppm	
	A	B	A-B	
			Mid	High
1	0	5.14		
2	256	264.0	-8.0	
3	450	460.7		-10.7
4	0	4.21		
5	450	459.7	-9.7	-9.7
6	256	263.9	-7.9	
7	0	5.26		
8	256	262.4	-6.4	
9	450	461.1		-11.1
10	0	6.49		
11	450	460.3		-10.3
12	256	263.6	-7.6	
13	0	4.78		
14	256	263.2	-7.2	
15	450	460.1		-10.1
Arithmetic Mean (Eq. 2-1) =			7.4	10.4
Confidence Interval (Eq. 2-2) =			.8	.7
Calibration Error (Eq. 2-3)[b] =			3.2%	2.5%

RELATIVE ACCURACY TESTS

During the test program, relative accuracy testing was conducted three times at each of the four monitoring locations. A complete relative accuracy test consisting of greater than nine runs was conducted at the North tower locations during the period of July 31 to August 6, 1981. An abbreviated test consisting of six replicates was conducted at the South Tower locations between August 7-13, 1981.

Additional abbreviated tests were conducted during the periods:

September 12-17, 1981
October 7-8, 1981

A summary of the tests is shown in Table 31, and the data obtained during each test are contained in Tables 32 through 63.

TABLE 31. SUMMARY OF RELATIVE ACCURACY TEST RESULTS FOR A. B. BROWN 1

Parameter	North Tower (% RA or % CO_2/O_2)						South Tower (% RA or % CO_2/O_2)					
	Inlet			Outlet			Inlet			Outlet		
	Test 1	Test 2	Test 3	Test 1	Test 2	Test 3	Test 1	Test 2	Test 3	Test 1	Test 2	Test 3
SO_2	16.9	5.5	21.4	16.4	14.6	13.5	28.7	12.5	14.7	14.8	14.7	18.4
O_2	0.46	0.30	1.10	0.13	1.14	0.55	0.53	0.14	1.09	0.40	0.62	1.33
CO_2	---	---	---	0.81	2.29	1.17	---	---	---	1.98	0.97	1.14
NO_x	23.9	29.0	26.5	---	---	---	[a]	[a]	[a]	---	---	---
$E_{SO_2(O_2F)}$	17.3	6.1	13.6	17.0	12.9	14.1	28.6[d]	12.5	12.8	11.8	14.2	14.4
$E_{SO_2(CO_2F)}$	---	---	---	21.0	27.9	8.7	---	---	---	16.1	11.8	19.2
$E_{NO(O_2F)}$	36.6[d]	31.0[d]	23.9[d]	---	---	---	[a]	[a]	[a]	---	---	---

[a]Test runs invalidated.

[b]$E_{SO_2(O_2F)}$ - Emission rate based on O_2 "F" factor.

[c]$E_{SO_2(CO_2F)}$ - Emission rate based on CO_2 "F" factor.

[d]Exceeds 20 percent relative accuracy based on emission rate.

---Not applicable.

TABLE 32. RELATIVE ACCURACY SUMMARY - TEST NO. 1, AUGUST 3 THROUGH 13, 1981

Parameter	North tower (%)		South tower (%)	
	Inlet	Outlet	Inlet	Outlet
SO_2	16.9	16.4	28.7*	14.8
O_2	0.46	0.13	0.53	0.40
CO_2	-	0.81	-	1.98
$E_{SO_2}(F_o)$	17.3	17.0	28.6*	11.8
$E_{SO_2}(F_{CO_2})$	-	21.0*	-	16.1
NO	23.9*	-	**	-
E_{NO}	36.6*	-	**	-

* Exceeds Allowable Criteria.

** Runs Invalidated.

NORTH RELATIVE ACCURACY

TABLE 33. NORTH INLET: HORIBA SO_2-MSA O_2 (AUGUST 1981)

Run	SO_2				O_2			
	Horiba (ppm)	M-6 (ppm)	X	X^2	MSA (%)	M-3 (%)	X	X^2
1	Invalid							
2	Invalid							
3	Invalid							
4	Invalid							
5	Invalid							
6	1,855	2,140	-285	81,225	11.00	11.30	-0.30	0.0900
7	2,112	2,261	-149	22,201	8.32	8.10	0.22	0.0484
8	2,239	2,343	-104	10,816	8.26	8.15	0.11	0.0121
9	Invalid							
10	3,040	2,784	256	65,536	6.03	7.60	-1.57	2.4649
11	3,007	2,691	316	99,856	Invalid			
12	2,242	1,975	267	71,289	Invalid			
13	2,721	2,320	401	160,801	7.38	6.40	0.98	0.9604
14	3,079	2,210	869	755,161	5.52	5.60	-0.08	0.0064
15	Invalid							
16	2,253	1,977	276	76,176	8.47	8.05	0.42	0.1764
17	2,587	2,312	275	75,625	6.83	6.50	0.33	0.1089
18	2,081	1,886	195	38,025	8.94	8.20	0.74	0.5476
19	2,902	2,626	276	76,176	5.14	6.40	-1.26	1.5876
20	Invalid				4.89	4.60	0.29	0.0841
21	2,775	2,522	253	64,009	5.68	5.10	0.58	0.3364
22	2,797	2,395	402	161,604	5.47	5.80	-0.33	0.1089
Total	35,690	32,442	3,248	1758,500	91.93	91.80	0.13	6.5321
Avg.	2,549	2,317	232	125,607	7.07	7.06	0.01	0.50
		n = 14 t = 2.160 CI = 160.51 RA = 16.9				n = 13 t = 2.2 CI = 0.4458 RA = 0.5		

TABLE 34. NORTH INLET EMISSIONS (AUGUST 1981)

Run	Horiba/MSA O_2				DuPont/MSA O_2			
	E_{Horiba} (ng/J)	E_{Ref} (ng/J)	X	X^2	E_{DuPont} (ng/J)	E_{Ref} (ng/J)	X	X^2
1	Invalid							
2	Invalid							
3	Invalid							
4	Invalid							
5	Invalid							
6	2,739.63	3,259.31	-519.68	270,068	3,340	3,259	81	6,561
7	2,454.69	2,582.70	-128.01	16,387	3,014	2,583	431	185,761
8	2,589.95	2,686.86	-96.92	9,393	3,210	2,687	523	273,529
9	Invalid							
10	2,989.14	3,060.56	-71.42	5,101	3,458	3,061	397	157,609
11	Invalid							
12	Invalid							
13	2,942.63	2,339.40	603.23	363,891	3,630	2,339	1,291	1,666,681
14	2,927.10	2,111.95	815.14	664,457	3,180	2,112	1,068	1,140,624
15	Invalid				3,310	2,546	764	583,696
16	2,650.17	2,249.51	400.66	160,531	3,213	2,250	963	927,495
17	2,688.35	2,347.52	340.83	116,167	3,083	2,348	735	539,961
18	2,544.04	2,171.31	372.73	138,931	3,249	2,171	1,078	1,162,084
19	2,692.31	2,647.95	44.36	1,967	3,103	2,648	455	207,025
20	Invalid							
21	2,665.83	2,333.84	331.98	110,213	3,123	2,334	789	622,521
22	2,650.39	2,319.06	331.33	109,780	3,177	2,319	858	736,164
Total	32,534.23	30,109.98	2,424.25	1,966,888			9,433	8,209,711
Avg.	2,711.19	2,509.17	202.02	163,907		2,512	726	
		n = 12 t = 2.201 CI = 232.83 RA = 17.33				CI = 204 $\bar{X}$ = 726 RA = 37%		

TABLE 35. NORTH OUTLET DUPONT SO_2-MSA O_2 (AUGUST 1981)

Run	SO_2				O_2			
	DuPont (ppm)	M-6 (ppm)	X	X^2	MSA (%)	M-3 (%)	X	X^2
1	Invalid							
2	Invalid							
3	Invalid							
4	Invalid							
5	Invalid							
6	136	162	-26	676	8.03	7.7	0.33	0.1089
7	174	196	-22	484	8.12	8.1	0.02	0.0004
8	158	185	-27	729	8.11	8.2	-0.09	0.0081
9	201	199	2	4	8.06	8.1	-0.04	0.0016
10	150	177	-27	729	6.38	6.2	0.18	0.0324
11	135	175	-40	1,600	5.63	5.6	0.03	0.0009
12	121	146	-25	625	9.07	9.0	0.07	0.0049
13	Invalid							
14	226	237	-11	121	Invalid			
15	Invalid				6.20	6.6	-0.40	0.1600
16	124	135	-11	121	8.05	8.0	0.05	0.0025
17	130	147	-17	289	6.60	6.5	0.10	0.0100
18	72	86	-14	196	8.65	8.9	-0.25	0.0625
Total	1,627	1,845	-218	5,574	82.9	82.9	0.0	0.3922
Avg.	148	165	-20	507	7.54	7.54	0.0	0.0357
		n = 11 t = 2.228 CI = 7.5 RA = 16.4				n = 11 t = 2.228 CI = 0.1 RA = 0.1		

TABLE 36. NORTH OUTLET EMISSIONS (AUGUST 1981)

Run	E_{Dupont}				North Outlet E_{CO_2}			
	E_{Inst} (ng/J)	E_{Ref} (ng/J)	X	X^2	$E_{Horiba\ CO_2}$	M-3 E_{CO_2}	X	X^2
1	Invalid							
2	Invalid							
3	Invalid							
4	Invalid							
5	Invalid							
6	154.506	179.442	-24.937	621.84	163.637	182.952	-19.315	373.06
7	199.068	223.887	-24.819	615.99	198.771	238.055	-39.284	1,543.25
8	180.622	212.986	-32.364	1,047.46	181.297	220.534	-39.236	1,539.50
9	228.884	227.314	1.569	2.46	228.600	241.699	-13.098	171.57
10	151.046	176,051	-25.006	625.29	149.009	189,897	-40.888	1,571.84
11	129.264	167.236	-23.972	1,441.87	126.772	173.309	-46.537	2,165.71
12	149.549	179.386	-29.837	890.26	153.327	195.798	-42.471	1,803.80
13	Invalid							
14	Invalid							
15	Invalid							
16	141.092	153.013	-11.921	142.11	139.792	163.966	-24.174	584.40
17	132.920	149.258	-16.338	266.93	135.850	157.711	-21.861	477.92
18	85.937	104.785	-18.848	355.26	89.821	110.720	-20.898	436.74
Total	1,552.888	1,773.361	-220.473	6,009.47	1,566.877	1,874.642	-307.765	10,767.80
Avg.	155.289	177.336	-22.047	600.95	156.688	187.464	-30.776	1,076.78
		n = 10 t = 2.262 CI = 8.1 RA = 17.3				n = 10 t = 2.262 CI = 8.6 RA = 21.0		

TABLE 37. NORTH INLET NO_x AND EMISSIONS (AUGUST 1981)

Run	TECO/NO_x TECO (ppm)	TECO/NO_x M-7 (ppm)	TECO/NO_x X	TECO/NO_x X^2	TECO (emissions) E_{INST} (ng/J)	TECO (emissions) E_{REF} (ng/J)	TECO (emissions) X	TECO (emissions) X^2
1	Invalid				Invalid			
2	Invalid				Invalid			
3	Invalid				Invalid			
4	Invalid				Invalid			
5	Invalid				Invalid			
6	Invalid				Invalid			
7	188	220	-32	1,024	156	181	-25	625
8	188	218	-30	900	156	180	-24	576
9	189	214	-25	625	Invalid			
10	205	127	78	6,084	145	100	45	2,025
11	235	175	59	3,481	Invalid			
12	220	177	43	1,849	Invalid			
13	Invalid				Invalid			
14	Invalid				Invalid			
15	233	159	74	5,476	171	114	56	3,197
16	235	159	76	5,776	199	130	69	4,761
17	217	185	32	1,024	161	135	26	676
18	199	206	-8	64	177	170	7	49
19	159	281	-122	14,884	107	204	97	9,409
20	233	262	-29	841	152	169	17	287
21	262	240	22	484	182	160	22	484
22	264	197	67	4,489	185	137	49	2,401
Total							339	24,490
Avg.		201.5				153	30.8	
	t_{14} = 2.160				t_{11} = 2.228			
	CI = 33.6 RA = 23.9%				CI = 25.2 RA = 36.6			

TABLE 38. NORTH OUTLET CO_2 (AUGUST 1981)

Run	Horiba (%)	M-3 (%)	X	X^2
1	Invalid			
2	Invalid			
3	Invalid			
4	Invalid			
5	Invalid			
6	10.70	11.4	-0.70	0.4900
7	11.27	10.6	0.67	0.4489
8	11.22	10.8	0.42	0.1764
9	11.32	10.6	0.72	0.5184
10	12.96	12.0	0.96	0.9216
11	13.71	13.0	0.71	0.5041
12	10.16	9.6	0.56	0.3136
13	Invalid			
14	Invalid			
15	12.62	11.8	0.82	0.6724
16	11.42	10.6	0.82	0.6724
17	12.32	12.0	0.32	0.1024
18	10.32	10.0	0.32	0.1024
Total	128.02	122.4	5.62	4.92
Avg.	11.64	11.13	0.51	0.4475

n = 11
t = 2.228
CI = 0.3
RA = 0.81

SOUTH RELATIVE ACCURACY

TABLE 39. SOUTH INLET: HORIBA SO_2--MSA O_2 (AUGUST 1981)

Run	SO_2				O_2			
	Horiba (ppm)	M-6 (ppm)	X	X^2	MSA (%)	M-3 (%)	X	X^2
1	Invalid							
2	3,458	2,805	653	426,409	4.31	4.80	-0.49	0.2401
3	3,458	2,694	592	350,464	5.01	4.40	0.61	0.3721
4	3,148	2,576	572	327,184	5.38	4.85	0.53	0.2809
5	3,246	2,602	644	414,736	5.15	5.10	0.05	0.0025
6	3,167	2,398	769	591,361	5.50	5.60	-0.10	0.0100
7	2,651	2,262	389	151,321	7.80	7.80	0.00	0.0000
Total	18,956	15,337	3,619	2,261,475	33.15	32.55	0.60	0.9056
Avg.	3,159	2,556	603	376,913	5.53	5.43	0.10	0.1509
	n = 6 t = 2.571 CI = 131.6 RA = 28.74				n = 6 t = 2.571 CI = 0.43 RA = 0.53			

TABLE 40. SOUTH OUTLET DUPONT SO_2--MSA O_2 (AUGUST 1981)

Run	SO_2				O_2			
	Dupont (ppm)	M-6 (ppm)	X	X^2	MSA (%)	M-3 (%)	X	X^2
1	Invalid							
2	Invalid							
3	Invalid							
4	163	197	-34	1,156	5.41	5.2	0.51	0.0441
5	253	287	-34	1,156	5.23	5.1	0.13	0.0169
6	Invalid							
7	327	312	15	225	5.55	5.7	-0.15	0.0225
8	Invalid				5.60	5.2	0.40	0.1600
9	442	394	48	2,304	Invalid			
10	427	386	41	1,681	6.81	7.0	-0.19	0.0361
11	371	338	33	1,089	7.19	7.4	-0.21	0.0441
12	378	340	38	1,444	7.30	8.0	-0.70	0.4900
Total	2,361	2,254	107	9,055	48.09	43.60	-0.51	0.8137
Avg.	337	332	15	1,294	6.16	6.23	-0.07	0.1162
	n = 7 t = 2.447 CI = 34.2 RA = 14.8				n = 7 t = 2.447 CI = 0.33 RA = 0.40			

TABLE 41. SOUTH OUTLET EMISSIONS (AUGUST 1981)

Run	Dupont/MSA O_2				Dupont/Horiba CO_2			
	E_{INST} (ng/J)	E_{REF} (ng/J)	X	X^2	E_{INST} (ng/J)	E_{REF} (ng/J)	X	X^2
1		Invalid				Invalid		
2		Invalid				Invalid		
3		Invalid				Invalid		
4	153.858	183.464	-29.606	876.50	155.446	195.097	-39.650	1572.14
5	236.067	265.588	-29.521	871.49	237.407	275.743	-38.336	1469.63
6		Invalid				Invalid		
7	311.475	300.120	11.355	128.94	313.239	326.570	-13.331	177.73
8		Invalid				Invalid		
9		Invalid				Invalid		
10	433.099	406.028	37.071	1374.23	450.974	451.774	-0.801	0.64
11	395.658	366.072	29.586	875.34	402.054	435.155	-33.101	1095.65
12	406.384	385.366	21.018	441.77	414.878	486.366	-71.488	5110.51
Total	1946.54	1906.64	39.903	4568.28	1974	2170.70	-196.707	9426.31
Avg.	324.42	317.77	6.651	761.38	329	361.78	-32.784	1853.19
	n = 6 t = 2.571 CI = 30.79 RA = 11.78				n = 6 t = 2.571 CI = 25.6 RA = 16.1			

TABLE 42. SOUTH OUTLET NO_x AND EMISSIONS (AUGUST 1981)

Run	TECO/NO_x TECO (ng/J)	M-7 (ng/J)	X	X^2	TECO NO_x E_{INST} (ng/J)	E_{REF} (ng/J)	X	X^2
1	Invalid							
2	236	117	119	14,161	156	76	80	6,400
3	248	148	100	10,000	164	94	70	4,900
4	248	128	120	14,400	164	84	80	6,400
5	242	100	142	20,164	161	67	94	8,836
6	248	112	136	18,496	169	77	92	8,464
7	Invalid							
8	239	102	137	18,769	182	78	104	10,816
Total			754	95,990			520	45,816
Avg.		118	126			79	86.7	
	t_6 = 2.571				t_6 = 2.571			
	CI = 16.5 RA = 120.7%				CI = 12.8 RA = 126%			

TABLE 43. SOUTH INLET EMISSIONS AND SOUTH OUTLET CO_2 (AUGUST 1981)

Run	Emissions/Horiba				CO_2 Horiba			
	E_{Horiba} (ng/J)	E_{Ref} (ng/J)	X	X^2	Horiba (%)	M-3 (%)	X	X^2
1	3062.00	2547.36	514.64	264854	Invalid			
2	3023.62	2387.25	636.37	404972	Invalid			
3	2965.70	2346.68	619.01	383177	Invalid			
4	3013.36	2407.87	605.49	366618	13.50	13.0	0.50	0.2500
5	3006.84	2291.61	715.23	511554	13.72	13.4	0.32	0.1024
6	2958.84	2524.67	434.17	188504	Invalid			
7					13.44	12.3	1.14	1.2996
8					13.36	13.0	0.36	0.1296
9					Invalid			
10					12.19	11.0	1.19	1.4161
11					11.88	10.0	1.88	3.5344
12					11.73	9.0	2.73	7.4529
Total	18030.37	14505.45	3524.91	2119681	89.82	81.70	8.12	14.1850
Avg.	3005.06	2417.58	587.49	353280	12.83	11.67	1.16	2.0264
	n = 6 t = 2.571 CI = 103.75 RA = 28.7				n = 7 t = 2.447 CI = 0.8 RA = 1.98%			

TABLE 44. RELATIVE ACCURACY SUMMARY, TEST NO. 2, SEPTEMBER 12 THROUGH 17, 1981

Parameter	North Tower		South Tower	
	Inlet	Outlet	Inlet	Outlet
SO	5.5	14.6	12.5	14.7
O_2	0.30 (% O_2)	1.14 (% O_2)	0.14 (% O_2)	0.62 (% O_2)
CO_2	--	2.29 (% CO_2)	[a]	0.97 (% CO_2)
NO	29.0	--	[a]	--
$E_{SO_2(Fo)}$	6.1	12.9	12.5	14.2
$E_{SO_2(fco_x)}$	--	27.9[b]	--	12.8

[a]Test runs inalidated.

[b]Value exceeds allowable criteria.

All analyses listed above with the exception of the NO_x on both towers have met the criteria.

NORTH RELATIVE ACCURACY

TABLE 45. NORTH INLET: HORIBA/SO_2 (SEPTEMBER 1981)

Run	Inlet Horiba/SO_2				Inlet Emissions/O_2			
	Horiba (ppm)	M-6 (ppm)	X	X^2	E_{Horiba} (ng/J)	E_{Ref} (ng/J)	X	X^2
1	Invalid							
2	Invalid							
3	Invalid							
4	2256	2279	-23	529	2778.89	2753.86	25.030	626.5
5	2334	2145	189	35,721	2839.10	2602.70	236.397	55,883.5
6	2333	2393	-60	3600	2826.12	2799.09	27.037	731.0
7	Invalid							
8	Invalid							
9	Invalid							
10	2390	2342	48	2304	2836.42	2783.98	52.446	2750.6
11	2371	2323	48	2304	2797.98	2684.99	112.988	12766.2
12	2363	2344	19	361	2797.57	2786.35	11.213	125.7
Total	14047	13826	221	44819	16876.08	16410.97	465.11	72883.6
Avg.	2341	2304	37	7470	2812.68	2735.16	77.518	12147.3
	n = 60 t = 2.571 CI = 89.90 RA = 5.5				n = 6 t = 2.571 CI = 90.08 RA = 6.1			

TABLE 46. NORTH INLET AND OUTLET: MSA/O_2 (SEPTEMBER 1981)

Run	Inlet MSA/O_2				Outlet MSA/O_2			
	MSA (%)	M-3 (%)	X	X^2	MSA (%)	M-3 (%)	X	X^2
1	Invalid				5.39	7.1	-1.71	2.9241
2	Invalid				8.08	8.0	0.08	0.0064
3	Invalid				Invalid			
4	9.03	8.80	0.23	0.0529	8.92	9.0	-0.08	0.0064
5	8.88	8.85	0.03	0.0009	8.76	9.4	-0.64	0.4096
6	8.83	8.40	0.43	0.1849	8.71	8.7	0.01	0.0001
7	8.80	8.40	0.40	0.1600	8.64	8.9	-0.26	0.0676
8	8.74	8.80	-0.06	0.0036				
9	8.62	8.50	0.12	0.0144				
10	8.58	8.60	-0.02	0.0004				
11	8.51	8.25	0.26	0.0676				
12	8.55	8.60	-0.05	0.0025				
Total	78.54	77.20	1.34	0.4872	48.50	51.10	-2.6	3.4142
Avg.	8.73	8.58	0.15	0.0541	8.08	8.5	-0.43	0.5690
	n = 9 t = 2.306 CI = 0.15 RA = 0.30				n = 6 t = 2.571 CI = 0.71 RA = 1.14			

TABLE 47. NORTH OUTLET: DUPONT/SO_2 (SEPTEMBER 1981)

Run	Outlet Dupont SO_2				Outlet Emissions O_2			
	DuPont (ppm)	M-6 (ppm)	X	X^2	E_{Inst} (ng/J)	E_{Ref} (ng/J)	X	X^2
1	194.4	227	-32.6	1062.76	183.260	240.509	-57.248	3277.37
2	268.5	292	-23.5	552.25	306.225	330.961	-24.736	611.89
3	Invalid				Invalid			
4	330.0	303	27.0	729.00	402.755	372.288	30.467	928.21
5	321.0	280	41.0	1681.00	386.607	355.995	30.612	937.11
6	326.0	302	24.0	576.00	391.019	361.935	29.084	845.85
7	290.9	271	19.9	396.01	346.926	330.196	16.730	279.90
Total	1730.8	1675	55.8	4997.02	2016.792	1991.889	24.908	6880.34
Avg.	228.5	279	9.3	832.84	336.132	331.981	4.151	1146.82
	n = 6 t = 2.571 CI = 31.41 RA = 14.6				n = 6 t = 2.571 CI = 38.64 RA = 12.9			

TABLE 48. NORTH OUTLET: DUPONT/HORIBA E_{SO_2} AND HORIBA/CO_2 (SEPTEMBER 1981)

Run	Outlet Emissions/CO_2				Outlet Horiba/CO_2			
	E_{Inst} (ng/J)	E_{Ref} (ng/J)	X	X^2	Horiba (%)	M-3 (%)	X	X^2
1	201.675	292.249	-90.574	8203.68	12.41	10.0	2.41	5.8081
2	306.996	395.718	-88.722	7871.64	11.26	9.5	1.76	3.0976
3	-	-	-	-	-	-	-	-
4	413.686	375.091	38.595	1489.57	10.27	10.4	-0.13	0.0169
5	397.373	353.415	43.958	1932.34	10.40	10.2	0.20	0.0400
6	401.632	381.183	20.449	418.15	10.45	10.2	0.25	0.0625
Total	1721.362	1797.656	-76.294	19915.39	54.79	50.30	4.49	9.0251
Avg.	344.272	359.531	-15.259	3983.08	10.96	10.06	0.90	1.8050
	n = 5 t = 2.776 CI = 85.00 RA = 27.9				n = 5 t = 2.776 CI = 1.4 RA = 2.29			

SOUTH RELATIVE ACCURACY

TABLE 49. SOUTH INLET: HORIBA/SO_2 (SEPTEMBER 1981)

Run	Inlet Horiba SO_2				Inlet Emissions O_2			
	Horiba (ppm)	M-6 (ppm)	X	X^2	E_{Inst} (ng/J)	E_{Ref} (ng/J)	X	X^2
1	2984	2858.9	125.1	15650	2807.58	2696.81	110.762	12268
2								
3								
4	2585	2223.6	361.4	130610	2793.49	2408.28	385.208	148385
5	2509	2345.9	163.1	26602	2760.32	2559.70	200.624	40250
6								
7	2201	2062.3	138.7	19238	2731.86	2512.78	219.081	47997
8	2174	2030.8	143.2	20506	2719.12	2495.19	223.931	50145
9	2197	2001.1	195.9	38377	2747.89	2544.22	203.669	41481
Total	14650	13523	1127.4	250982	16560.25	15216.98	1343.275	340526
Avg.	2442	2254	187.9	41830	2760.04	2536.16	223.879	56754
	n = 6 t = 2.571 CI = 92.87 RA = 12.5				n = 6 t = 2.571 CI = 93.64 RA = 12.5			

TABLE 50. SOUTH INLET AND OUTLET: MSA/O_2 (SEPTEMBER 1981)

Run	Inlet MSA/O_2				Outlet MSA/O_2			
	MSA (%)	M-3 (%)	X	X^2	MSA (%)	M-3 (%)	X	X^2
1	5.36	5.4	-0.04	0.0016	5.74	6.10	-0.36	0.1296
2	5.29	5.4	-0.11	0.0121	5.71	5.70	0.01	0.0001
3	Invalid				Invalid			
4	7.37	7.4	-0.03	0.0009	7.69	8.55	-0.86	0.7396
5	7.61	7.5	0.11	0.0121				
6	8.96	9.0	-0.04	0.0016	8.79	9.10	-0.31	0.0961
7	9.12	8.9	0.22	0.0484	9.26	9.40	-0.14	0.0196
8	9.21	9.0	0.21	0.0441	9.36	9.30	0.06	0.0036
9	9.21	9.4	-0.19	0.0361	----	----	----	----
Total	62.13	62.00	0.13	0.1569	46.55	48.15	-1.60	0.9886
Avg.	7.77	7.75	0.02	0.0196	7.76	8.03	-0.27	0.1638
	n = 8 t = 2.365 CI = 12 RA = 0.14%				n = 6 t = 2.571 CI = 0.35 RA = 0.62%			

TABLE 51. SOUTH OUTLET: DUPONT/SO_2 (SEPTEMBER 1981)

Run	Outlet Dupont SO_2				Outlet Emissions O_2			
	DuPont (ppm)	M-6 (ppm)	X	X^2	E_{Inst} (ng/J)	E_{Ref} (ng/J)	X	X^2
1	310.5	298.2	12.3	151.29	299.465	294.598	4.8671	23.69
2	295.0	302.8	-7.8	60.84	283.954	291.270	-7.3162	53.53
3								
4	230.0	221.9	8.1	65.61	254.571	262.608	8.1376	66.22
5	229.0	201.7	27.3	745.29				
6	326.0	281.9	44.1	1944.81	393.602	349.299	44.3033	1962.79
7	304.0	273.1	30.9	954.81	381.860	347.222	34.6379	1199.78
8								
Total	1694.5	1579.6	114.9	3922.65	2623.452	1545.097	68.3546	3306.00
Avg.	282.4	263.3	19.2	653.78	322.69	309.019	13.6709	661.20
		n = 6 t = 2.571 CI = 19.48 RA = 14.7%				n = 5 t = 2.776 CI = 30.23 RA = 14.2%		

TABLE 52. SOUTH OUTLET: DUPONT/SO_2 AND HORIBA/CO_2 (SEPTEMBER 1981)

Run	Outlet Horiba CO_2				Outlet Emissions CO_2			
	Horiba (%)	M-3 (%)	X	X^2	E_{Inst} (ng/J)	E_{Ref} (ng/J)	X	X^2
1	13.22	12.5	0.72	0.5184	302.383	307.132	-4.749	22.55
2	13.24	12.9	0.34	0.1156	286.854	302.199	-15.345	235.47
3								
4	11.42	10.4	1.02	1.0404	259.292	274.695	-15.403	237.26
5	11.09	10.2	0.89	0.7921	265.846	254.585	11.262	126.82
6	10.03	9.7	0.33	0.1089	418.450	374.154	44.296	1962.15
7	9.89	10.0	-0.11	0.0121	395.735	351.600	44.135	1947.90
Total	68.89	65.7	3.19	2.5875	1928.562	1864.365	64.195	4532.15
Avg.	11.48	10.95	0.53	0.4313	321.427	310.727	10.699	755.36
	n = 6 t = 2.571 CI = 0.44 RA = 0.97%				n = 6 t = 2.571 CI = 29.11 RA = 12.8%			

TABLE 53. RELATIVE ACCURACY SUMMARY - TEST NO. 3, OCTOBER 7-8, 1981

Parameter	North tower (%)		South tower (%)	
	Inlet	Outlet	Inlet	Outlet
SO_2	21.4*	13.5	14.7	18.4
O_2	1.10 (% O_2)	0.55 (% O_2)	1.09 (% O_2)	1.33 (% O_2)
CO_2	-	1.17 (% CO_2)	-	1.14 (% CO_2)
NO	26.5*	-	a	-
$E_{SO_{2(Fo)}}$	13.6	14.1	12.8	14.4
$E_{SO_{2(Fco_2)}}$	-	8.7	-	19.2
E_{NO}	23.9*	-	a	-

(Fo) = Oxygen based fuel factor.

(F_{cO_2}) = CO_2 based fuel factor.

- Not applicable.

*Test runs invalidated.

NORTH MODULE RELATIVE ACCURACY

TABLE 54. NORTH INLET: HORIBA/SO_2 (OCTOBER 1981)

Run	Horiba (ppm)	M-6 (ppm)	X	X^2	E_{Inst}	E_{Ref}	X	X^2
1	2372	2002	370	136900	2971.85	2814.59	157.269	24734
2	2217	1988	229	52441	2845.94	2560.97	284.971	81209
3	2209	2090	119	14161	2843.16	2790.72	25.441	2750
4	2180	1979	201	40401	2833.27	2691.66	141.603	20051
5	2355	1981	374	139876	2965.80	2574.63	391.169	153013
6	2379	1920	459	210681	2955.30	2623.62	331.679	110011
Total	13712	11960	1752	594460	17415.32	16056.19	1359.132	391768
Avg.	2285	1993	292	99077	2902.55	2676.03	226.522	65295
	n = 6 t = 2.571 CI = 135.13 RA = 21.4%				n = 6 t = 2.571 CI = 135.96 RA = 13.6%			

TABLE 55. NORTH OUTLET: DUPONT SO_2 (OCTOBER 1981)

Run	Dupont (ppm)	M-6 (ppm)	X	X^2	E_{Inst}	E_{Ref}	X	X^2
1	424.0	408	16.0	256.00	531.681	477.237	54.4441	2964.16
2	411.0	372	39.0	1521.00	514.938	458.995	55.9423	3129.54
3	578.0	520	58.0	3364.00	755.909	672.835	83.0743	6901.35
4	408.0	370	38.0	1444.00	518.285	466.367	51.9183	2695.51
5	421.5	380	41.5	1722.00	534.505	498.302	36.2035	1310.69
6	411.0	365	46.0	2116.00	517.153	468.136	49.0178	2402.74
Total	2653.5	2415	238.5	10423.25	3372.471	3041.871	330.6003	19403.99
Avg.	442.3	402.5	39.8	1737.21	562.079	506.978	55.100	3234.00
	n = 6 t = 2.571 CI = 14.4% RA = 13.5%				n = 6 t = 2.571 CI = 16.2 RA = 14.1%			

TABLE 56. NORTH OUTLET: HORIBA CO_2 AND DUPONT/HORIBA E_{CO_2} (OCTOBER 1981)

Run	Horiba (%)	M-3 (%)	X	X^2	E_{Inst} (ng/J	E_{Ref} (ng/J)	X	X^2
1	10.85	9.50	1.35	1.8225	503.110	552.922	-49.811	2481.18
2	10.14	9.25	0.89	0.7921	521.832	517.760	4.073	16.59
3	9.67	9.40	0.27	0.0729	769.535	712.201	57.334	3287.20
4	9.99	9.60	0.39	0.1521	525.801.	496.201	29.600	876.19
5	9.92	9.20	0.72	0.5184	547.032	531.769	15.264	232.98
6	10.05	9.10	0.95	0.9025	526.505	516.391	10.115	102.30
Total	60.62	56.05	4.57	4.26	3393.816	3327.242	66.574	6996.43
Avg.	10.10	9.34	0.76	0.7101	565.636	554.54	11.096	1166.07
		n = 6 t = 2.571 CI = 0.41 RA = 1.17% CO_2				n = 6 t = 2.571 CI = 37.13 RA = 8.7%		

TABLE 57. NORTH INLET AND OUTLET: MSA/O_2
(OCTOBER 1981)

Run	Inlet				Outlet			
	MSA (%)	M-3 (%)	X	X^2	MSA (%)	M-3 (%)	X	X^2
1	9.23	10.50	-1.27	1.6129	9.24	8.40	0.84	0.7056
2	9.51	9.55	-0.04	0.0016	9.23	9.05	0.18	0.0324
3	9.54	9.95	-0.41	0.1681	9.72	9.60	0.12	0.0144
4	9.65	10.15	-0.50	0.2500	9.39	9.30	0.09	0.0081
5	9.29	9.65	-0.36	0.1296	9.37	9.75	-0.38	0.1449
6	9.13	10.20	-1.07	1.1449	9.28	9.50	-0.22	0.0484
Total	56.35	60.00	-3.65	3.3071	56.23	55.60	0.63	0.9533
Avg.	9.39	10.00	-0.61	0.5512	9.37	9.27	0.11	0.1588
	n = 6 t = 2.571 CI = 0.4893 RA = 1.10%				n = 6 t = 2.571 CI = 0.44 RA = 0.55%			

TABLE 58. North Inlet: TECO/NO (October 1981)

Run	TECO (%)	m-7 (%)	x	x^2	E_{inst}	E_{inst}	x	x^2
1	181	162	19	361	174	164	10	100
2	180	154	26	676	166	143	23	529
3	177	148	29	841	164	142	22	484
4	174	134	40	1600	163	131	32	1024
5	183	153	30	900	166	143	23	529
6	183	142	41	1681	164	141	23	529
7	183	146	37	1369	164	125	39	1521
Total			222	7428			172	4716
$(Total)^2$			49284				29584	
Avg		148	32			141	25	

CI = 7.2

RA = 26.5%

t_7 = 2.365

CI = 8.1

RA = 23.9%

t_7 = 2.365

SOUTH MODULE RELATIVE ACCURACY

TABLE 59. SOUTH INLET: HORIBA/SO_2 (OCTOBER 1981)

Run	Horiba (ppm)	M-6 (ppm)	X	X^2	E_{Inst} (ng/J)	E_{Ref} (ng/J)	X	X^2
1	3015	2753	262	68644	3093.54	2805.03	288.510	83238
2	3019	2738	282	78961	3071.78	2704.93	366.853	134581
3	2653	2379	274	75076	2912.17	2839.50	72.669	5281
4	2812	2484	328	107584	2957.90	2631.82	326.085	106331
5	2178	2294	-116	13456	2905.57	2715.88	189.690	35982
6	2252	2252	0	0	2955.74	2802.30	152.447	23546
Total	15929	14900	1029	343721	17896.7	16499.45	1397.25	388960
Avg.	2655	2483	172	57287	2982.78	2749.91	232.876	64827
			n = 6 t = 2.571 CI = 191.96 RA = 14.7%			n = 6 t = 2.571 CI = 118.35 RA = 12.8%		

TABLE 60. SOUTH OUTLET: DUPONT/SO_2 (OCTOBER 1981)

Run	DuPont (ppm)	M-6 (ppm)	X	X^2	E_{Inst} (ng/J)	E_{Ref} (ng/J)	X	X^2
1	321	360	-39	1521	333.813	371.989	-38.176	1457.38
2	347	360	-13	169	354.547	375.974	-21.428	459.14
3	380	368	12	144	413.705	385.707	17.999	783.93
4	370	399	-29	841	410.771	412.287	-1.517	2.30
5	205	284	-79	6241	277.019	343.176	-66.156	4376.66
6	185	211	-26	676	248.843	253.916	-5.073	25.73
Total	1808	1982	-174	9592	2038.699	2143.049	-104.35	7105.13
Avg.	301	330	-29	1599	339.783	357.175	-17.392	1184.19
		n = 6 t = 2.571 CI = 31.65 RA = 18.4%				n = 6 t = 2.571 CI = 34.14 RA = 14.4%		

TABLE 61. SOUTH OUTLET: HORIBA CO_2 AND DUPONT/HORIBA E_{SO_2} (OCTOBER 1981)

Run	Horiba (%)	M-3 (%)	X	X^2	E_{Inst} (ng/J)	E_{Ref} (ng/J)	X	X^2
1	12.75	11.65	1.10	1.2100	324.132	397.836	-73.704	5432.22
2	12.89	11.65	1.24	1.5376	346.580	397.836	-51.255	2627.13
3	11.98	11.55	0.43	0.1849	408.370	410.197	-1.827	3.34
4	12.13	12.10	0.03	0.0009	392.706	424.536	-31.830	1013.13
5	9.34	10.30	-0.96	0.9216	282.575	354.983	-72.408	5242.96
6	9.60	9.95	-0.35	0.1225	248.100	273.015	-24.914	620.73
Total	68.69	67.20	1.49	3.9775	2002.403	2258.403	-255.939	2489.92
Avg.	11.45	11.20	0.25	0.6629	333.744	376.401	-42.657	2489.92
	n = 6 t = 2.571 CI = 0.89 RA = 1.14%				n = 6 t = 2.571 CI = 29.77 RA = 19.2%			

TABLE 62. SOUTH INLET AND OUTLET: MSA/O_2 (OCTOBER 1981)

Run	Inlet				Outlet			
	MSA (%)	M-3 (%)	X	X^2	MSA (%)	M-3 (%)	X	X^2
1	6.65	6.55	0.10	0.0100	6.84	6.75	0.09	0.0081
2	6.53	6.10	0.43	0.1849	6.59	6.90	-0.31	0.0961
3	7.58	8.65	-1.07	1.1449	7.47	6.95	0.52	0.2704
4	7.00	7.10	-0.10	0.0100	7.73	6.75	0.98	0.9604
5	9.94	8.55	1.39	1.9321	10.08	8.80	1.28	1.6384
6	9.76	9.15	0.61	0.3721	10.03	8.75	1.28	1.6384
Total	47.46	46.10	1.36	3.6540	48.74	44.9	3.84	4.6118
Avg.	7.91	7.68	0.23	0.6090	8.12	7.48	0.64	0.7686
	n = 6 t = 2.571 CI = 0.86 RA = 1.1%				n = 6 t = 2.571 CI = 0.69 RA = 1.3%			

PRECISION ESTIMATE DATA

Precision Estimate Equations

(1) Percentage Difference (d_i)

$$d_i = \frac{Y_i - X_i}{X_i} (100) \qquad \text{(Eq. 1)}$$

where: Y_i = From the i-th precision check.

X_i = The precision check reference used for the i-th precision check.

(2) Monthly average percent difference ($\bar{d}_j$)

$$\bar{d}_j = \frac{1}{n} \sum_{i=1}^{n} d_1 \qquad \text{(Eq. 2)}$$

where: n = number of valid precision checks made during the calender month j.

(3) Standard deviation of the percent difference (S_j)

$$S_j = \sqrt{\frac{1}{n-1} \left[\sum_{i=1}^{n} d_1^2 - \frac{1}{n} \left(\sum_{i=1}^{n} d_i \right)^2 \right]} \qquad \text{(Eq. 3)}$$

(4) Upper and lower 95 percent probability limits (UPL and LPL)

$$UPL = \bar{d}_j + 1.96\, S_j \qquad \text{(Eq. 4)}$$

$$LPL = \bar{d}_j - 1.96\, S_j \qquad \text{(Eq. 5)}$$

TABLE 63. A.B. BROWN PRECISION ESTIMATE RESULTS

Location	Parameter	Month	Zero precision estimate (%)		Span precision estimate (%)	
			Lower	Upper	Lower	Upper
Inlet	SO_2 (Horiba)	August	-0.9	0.5	-1.6	2.3
		September	-0.3	0.8	-1.5	1.5
		October[a]	-0.2	0.8	-0.4	-3.9
	O_2 (MSA)	August	-1.0	0.7	-4.0	1.8
		September	-0.3	0.0	-1.8	1.4
		October[a]	-0.3	0.0	-2.7	1.3
Outlet	SO_2 (DuPont)	August	-7.2	6.1	-16.2	9.1
		September	-8.2	12.5	-8.3	4.4
		October[a]	-2.3	2.9	-6.6	5.0
	O_2 (MSA)	August	0.0	0.5	-2.5	1.7
		September	0.0	0.6	3.7	4.6
		October[a]	-0.1	0.3	0.6	0.8
	CO_2 (Horiba)	August	-0.5	1.2	-4.0	0.8
		September	-0.5	1.3	-2.7	2.5
		October[a]	0.5	0.6	1.8	4.0

[a]Indicates less than 10 entries used for calculating these estimates.

HORIBA PIR 2000

SO_2

INLET PRECISION DATA

Monitor: Inlet SO_2 / Horiba — AB BROWN

Month: August — Range: 0-5000 PPM

$ax^2 + bx + c = y$

	DATE	ZERO VOLTAGE	ZERO CONC	ZERO di(%)	SPAN VOLTAGE	SPAN CONC	SPAN di(%)	SPAN CONC
	8-1-81	-0.0195	-29.339	-0.58	4.7581	4620.55	1.21	
	2	-0.0167	-25.454	-0.51	4.7436	4596.05	0.72	
*	3	0.0097	18.10	0.36	4.7120	4581.54	0.43	
	4	-0.0210	-24.017	-0.48	4.76167	4611.606	1.03	
	5	-0.0142	-14.1662	-0.30	4.6964	4571.85	0.24	
	6	0.0093	13.1607	0.35	4.7270	4589.28	0.59	
	7	0.0055	-2.705	-0.05	4.6590	4550.34	-0.19	
*	8	-0.0033	-21.403	-0.42	4.7400	4560.15	0.003	
	9	0.01416	23.081	0.46	4.7240	4602.84	0.86	
	10	-0.0333	-43.558	-0.871	4.6980	4588.27	0.57	
	11	0.0131	21.020	0.42	4.7590	4622.76	1.25	
	12	-0.00169	-6.777	-0.13	4.7980	4632.72	1.45	4560 PPM
	13	-0.0150	-18.047	-0.36	4.7770	4632.17	1.44	
†	14	0.01416	-18.409	-0.37	4.6450	4605.69	0.91	
	15	0.0043	-6.371	-0.13	4.6920	4586.82	0.54	
	16	0.0013	-10.1669	-0.21	4.7040	4593.14	0.66	
	17	0.0013	-10.669	-0.21	4.7160	4599.43	0.79	
	18	0.0009	-11.242	-0.22	4.7260	4604.64	0.89	
-	19							
	20	-0.0335	-60.647	-1.21	4.7352	4609.43	0.99	
	21	-0.0044	-18.539	-0.37	4.7392	4611.50	1.03	
-	22							
*	23	0.0210	-17.55	-0.35	4.7300	4607.10	0.94	
	24	-0.0002	-10.692	-0.21	4.7049	4605.88	1.32	
	25	-0.0015	-12.5546	-0.25	3.3918	3735.416	-0.79	
	26	-0.00006	-11.2662	-0.22	3.3786	3725.11	-1.00	
	27	-0.0024	-13.530	-0.27	3.3771	3723.43	-1.02	3775 PPM
	28	0.0022	-7.0169	-0.14	3.3712	3719.30	-1.11	
	29	-0.0031	-14.828	-.30	3.3790	3735.42	-0.99	
*	30	0.0073	-2.64	-0.04	3.3140	3677.41	-1.96	
	8-31-81	-0.0037	2.702	0.05	3.3380	3682.01	-1.86	

- NO DATA
* Both 3pt & 5pt data (used 5pt data)
* 5pt data only

N = 29

	ZERO	SPAN
Σd_i	-6.56	8.94
$\bar{d}_i$	-.23	0.31
S_i	.35	0.99
UPL	0.46%	2.25%
LPL	-.92%	-1.63%

Monitor: INLET SO_2 / Horiba

Month: September

Range: 0-5000 PPM

$ax^2+bx+c=y$

	ZERO			SPAN			
DATE	VOLTAGE	CONC	d_i(%)	VOLTAGE	CONC	d_i(%)	SPAN CONC
9-1-81	-0.0083	-54.51	-0.10	3.3370	3268.47	-1.88	3775 PPM
2							
3							
4							
5	0.0055	13.292	0.26	5.0360	4894.48	0.69	
6	0.0058	13.699	0.27	5.0710	4914.80	1.10	
7	-0.0015	3.788	0.07	5.0530	4903.79	0.88	
8	0.0041	11.392	0.22	5.0380	4895.64	0.71	
9	0.0009	7.048	0.14	5.0540	4904.95	0.90	
* 10	0.0049	12.45	0.25	5.0310	4891.48	0.63	
11	0.0036	11.559	0.23	5.0440	4871.60	0.22	
12	-0.0024	3.455	0.07	4.9820	4831.87	-0.50	
13							
14	0.0065	13.314	0.26	5.0340	4865.21	0.10	4860 PPM
15							
16							
17	0.0095	19.522	0.39	5.0504	4874.69	0.29	
18	0.0087	18.443	0.36	5.04104	4870.38	0.25	
* 19	0.0191	32.35	0.65	5.0740	4867.27	0.14	
20	0.0420	55.779	1.11	5.0170	4836.23	-0.48	
21	-0.0070	-10.690	-0.21	5.0291	4843.10	-0.34	
22	-0.0063	-9.738	-0.19	5.0281	4842.54	-0.35	
23							
24	0.0071	8.475	0.17	5.0829	4873.39	0.27	
25	0.0087	10.648	0.21	5.0734	4868.08	0.16	
* 26	0.0057	6.574	0.013	5.0383	4848.32	-0.23	
27	0.0135	17.13	0.34	5.0960	4880.48	0.40	
28	0.0085	28.405	0.56	5.0510	4839.45	-0.41	
29	0.0068	26.117	0.52	5.0347	4830.45	-0.59	
9-30-81	0.0046	23.130	0.46	3.3862	3677.91	-1.94	3775 PPM
31							

- NO DATA
* Both 3pt & 5pt data (used 5pt data)
* 5pt data only

	ZERO	SPAN
Σd_i	5.80	0.02
$\bar{d}_i$	0.26	0.00
S_i	0.29	0.78
UPL	0.82%	1.53%
LPL	-0.30%	-1.53%

Monitor: INLET SO_2/Horiba
Month: October

A.B. Brown
Range: 0-5000 ppm

$ax^2+bx+c=y$

	ZERO			SPAN			
DATE	VOLTAGE	CONC	d_i(%)	VOLTAGE	CONC	d_i(%)	SPAN CONC
10-1-81	-0.0033	13.892	0.27	3.3101	3680.71	-1.90	
2	0.0045	22.994	0.46	3.387	3701.50	-1.47	
- 3							
- 4							
5	0.0127	74.125	0.168	3.343	3665.40	-2.19	3775 ppm
6	0.0042	22.587	0.45	3.388	3702.32	-1.45	
- 7							
*10-8-81	0.0047	23.27	0.46	3.2540	3591.43	-3.67	
9							
10							
11							
12							
13							
14							
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31							

- NO DATA
* Both 3pt & 5pt data (used 5pt data)
* 5pt data only

	ZERO	SPAN
Σd_i	2.33	-10.68
$\bar{d}_i$	0.46	-2.14
S_i	0.15	0.91
UPL	0.75%	-0.35%
LPL	-0.18%	-3.92%

DUPONT MODEL 400

SO_2

August, September, October*
1981

***Test program was only in progress first 8 days of October.**

Monitor: OUTLET SO_2 / DUPONT — A.B. BROWN

Month: August

Range: 0-1000 PPM

$ax^2 + bx + c = y$

	ZERO			SPAN			
DATE	VOLTAGE	CONC	d_i(%)	VOLTAGE	CONC	d_i(%)	SPAN CONC
1	0.0186	-1.57	-0.15	0.5045	962.56	-1.74	
2	0.02168	11.35	1.17	0.4131	935.87	-4.41	
* 3	0.0316	-37.16	-3.76	0.5059	881.90	-12.81	
4	0.0305	-19.09	-1.93	0.5051	850.79	-12.92	980 PPM
5	0.0303	-19.30	-1.97	0.5020	845.83	-13.41	
6	0.0358	-8.35	-0.83	0.5122	862.14	-11.78	
7	0.0430	6.45	0.64	0.5215	876.92	-10.31	
# 8	0.0473	15.27	1.53	0.5698	952.34	4.23	
9	0.0505	21.85	2.19	0.5912	984.84	7.48	
10	0.0572	-15.160	-1.56	0.5842	890.98	-1.90	
11	0.06036	-2.82	-0.28	0.5737	875.80	-3.42	
12	0.0659	1.77	0.18	0.5574	852.00	-5.80	
# 13	0.0726	15.08	1.51	0.6007	913.88	0.38	
# 14	0.0755	20.83	2.08	0.6010	928.97	1.90	
15	0.0828	-2.39	-0.24	0.6035	897.52	-1.25	
16	0.0789	-10.30	-1.03	0.5812	865.32	-4.47	
17	0.0736	-21.07	-2.11	0.6046	899.09	-1.09	910 ppm
18	0.0619	-44.97	-4.50	0.5607	835.22	-7.48	
- 19							
20	0.09(07)	12.12	1.22	0.4690	694.71	-21.53	
21	0.0846	1.26	0.13	0.6093	905.80	-0.42	
22							
* 23	0.0868	5.71	.57	0.6223	923.21	1.32	
24	0.0812	-3.77	-0.38	0.6068	903.91	-0.60	
25	0.0818	-2.51	-0.25	0.6077	905.14	-0.48	
26	0.0860	6.23	0.62	0.6035	899.39	-1.06	
27	0.0848	3.74	0.37	0.6049	897.20	-1.28	
28	0.0821	-1.89	-0.19	0.5624	841.84	-6.81	
29	0.07816	-9.19	-0.92	0.6010	895.96	-1.40	
* 30	0.0723	117.53	11.75	0.6096	963.12	5.31	
31	0.0685	110.167	11.07	0.5880	933.96	2.40	

- NO DATA
* Both 3pt & 5pt data (used 5pt data)
* 5pt data only

$29 = N$

	ZERO	SPAN
Σd_i	-14.93	-103.36
$\bar{d}_i$	-0.5148	-3.5641
S_i	3.3949	6.4541
UPL	6.13	9.08
LPL	-7.16	-16.2

Monitor: OUTLET SO_2 / DuPont
Month: September

Range: 0-1000 PPM
$ax^2 + bx + c = y$

	DATE	ZERO VOLTAGE	ZERO CONC	ZERO d_i(%)	SPAN VOLTAGE	SPAN CONC	SPAN d_i(%)	SPAN CONC
	9-1-81	0.0790	129.164	12.916	0.5970	946.14	3.614	
	2							
	3	0.0690	111.57	11.16	0.5864	932.46	2.25	
	4	0.0687	112.84	12.28	0.5912	938.30	2.83	
	5	0.0671	108.13	10.81	0.5995	949.52	3.95	
	6	0.0564	88.68	8.87	0.5408	868.90	-4.11	
	7	0.0375	54.08	5.41	0.5704	909.92	-0.01	
	8	0.0137	10.07	1.01	0.5380	864.97	-4.50	
	9	-0.0110	-36.13	-3.61	0.5160	833.93	-7.60	
#	10	-0.0238	9.39	.94	0.5130	835.27	-7.47	910 PPM
	11	-0.0108	116.76	1.68	0.5018	897.84	-1.22	
	12							
	13							
	14	-0.0203	-2.88	-0.28	0.5074	898.107	-1.13	
	15							
	16							
	17	-0.0273	-17.33	-1.73	0.4910	893.46	-1.60	
	18	-0.0194	-0.96	-0.09	0.50606	904.46	-0.55	
*	19	-0.0188	-26.3	-2.63	0.5164	896.33	-1.37	
	20	-0.0212	-33.54	-3.35	0.5090	886.26	-2.37	
	21	-0.0256	-42.71	-4.27	0.4853	853.18	-5.70	
	22	-0.0095	-9.28	-0.93	0.3408	639.98	-5.50	
	23							688 PPM
	24	-0.0042	1.65	0.116	0.3558	658.75	-2.97	
	25	0.0048	20.13	2.01	0.36020	668.07	-1.99	
	26	0.0058	22.18	2.22	0.3596	664.27	-2.37	
*	27	0.0070	24.163	2.46	0.5414	930.39	2.04	910 PPM
	28	0.0131	-13.166	-1.37	0.3673	646.46	-4.15	
	29	0.0121	-13.166	-1.37	0.36856	648.63	-3.94	688 PPM
	9-30-81	0.0119	-14.07	-1.41	0.3709	650.45	-3.55	
	31							

- NO DATA
* Both 3pt & 5pt data (USED 5pt data)
* 5pt data only

$24 = N$

	ZERO	SPAN
Σd_i	50.73	-47.416
$\bar{d}_i$	2.1138	-1.97567
S_i	5.2785	3.2473
UPL	12.45	4.39
LPL	-8.23	-8.34

Monitor: OUTLET SO_2/Dupont
Month: October

H. Brown
Range: 0-1000 ppm

$ax^2+bx+c=y$

DATE	ZERO VOLTAGE	ZERO CONC	ZERO di(%)	SPAN VOLTAGE	SPAN CONC	SPAN di(%)	SPAN CONC
10-1-81	.0152	-7.31	-0.73	.3820	670.83	-1.71	
2	.0149	-7.92	-0.79	.37106	661.91	-2.61	
3							688
4							
5	.01168	-4.04	-0.40	.3775	663.40	-2.46	
6	.0275	17.79	1.78	.3825	671.616	-1.63	
7							
* 8	.0268	17.20	1.72	.16007	292.71	1.47	248
9							
10							
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31							

- NO DATA
* Both 3pt & 5pt data (used 5pt data)
* 5pt data only

5 = N

	ZERO	SPAN
Σd_i	1.58	-3.94
$\bar{d}_i$	0.316	-0.788
S_i	1.3176	2.9716
UPL	2.89	5.03
LPL	-2.26	-6.61

MSA MODEL 802

INLET O_2

August, September, October*
1981

*Test program was only in progress first 8 days of October.

Monitor: INLET O_2/MSA
Month: August

A.B. Brown
Range: 0-15%
$mx+b=y$

	DATE	ZERO VOLTAGE	ZERO CONC	ZERO di(%)	SPAN VOLTAGE	SPAN CONC	SPAN di(%)	SPAN CONC
	1	.0001	-0.11	-0.73	.0940	13.67	0.47	
	2	.0003	-0.08	-0.53	.0929	13.51	-0.6	
*	3	.0002	-0.13	0.87	.0925	13.42	-1.20	
	4	.0002	-0.08	-0.53	.0927	13.85	1.67	
	5	.0002	-0.08	-0.53	.0924	13.19	-2.73	
	6	.0002	-0.08	-0.53	.0915	13.06	-3.60	
	7	.0002	-0.08	-0.53	.0905	12.94	-4.40	
#	8	.0003	-0.016	-0.40	.0967	13.09	-3.4	
	9	.0003	-0.04	-0.27	.0928	13.26	-2.27	
	10	.0002	-0.016	-0.40	.0934	13.34	-1.73	
	11	.0005	-0.01	-0.07	.0924	13.20	-2.69	13.6
	12	.0002	-0.06	-0.40	.0932	13.31	-1.93	
#	13	.0003	-0.04	-0.27	.0932	13.31	-1.93	
	14	.0000	0.11	-0.73	.0923	13.39	-1.40	
	15	.0002	-0.06	-0.40	.0918	13.41	-1.27	
	16	.0002	-0.06	-0.40	.0923	13.49	-0.73	
	17	.0002	-0.06	-0.40	.0923	13.49	-0.73	
	18	.0002	-0.06	-0.40	.0927	13.55	-0.33	
	19							
	20	.0001	0.00	0.60	.0927	13.55	-0.33	
	21	.0001	0.09	0.60	.0929	13.51	-0.59	
	22							
*	23	.0001	0.12	0.80	.0928	13.46	-0.93	
	24	.0001	-0.05	-0.33	.0929	13.64	0.27	
	25	.0001	-0.05	-0.33	.0732	10.73	1.20	
	26	.0001	-0.05	-0.33	.0727	10.66	0.73	
	27	.0002	-0.03	-0.20	.0726	10.64	0.60	
	28	.0003	-0.02	-0.13	.0721	10.57	0.13	10.55
	29	.0002	-0.03	-0.20	.0723	10.60	0.33	
*	30	.0003	+0.00	0.00	.0710	10.23	-2.13	
	8-31-81	.0003	+0.00	-0.00	.0716	10.37	-1.20	

- NO DATA
Both 3pt & 5pt data (used 5pt data)
* 5pt data only

	ZERO	SPAN
Σd_i	-4.71	-30.76
$\bar{d}_i$	-0.16	-1.06
S_i	0.44	1.48
UPL	0.70%	1.84%
LPL	-1.02%	-3.96%

Monitor: INLET O_2/MSA
Month: September

A.B. Brown
Range: 0-15%
$mx+b=y$

	ZERO			SPAN			
DATE	VOLTAGE	CONC	di(%)	VOLTAGE	CONC	di(%)	SPAN CONC
1	.0003	-0.00	-0.00	.0715	10.37	-1.20	
2							
3							10.55
4							
5	.0002	-0.02	-0.13	.0921	13.37	-0.20	
6	.0001	-0.03	-0.20	.0934	13.56	1.07	
7	.0002	-0.02	-0.13	.0943	13.69	1.93	
8	.0002	-0.02	-0.13	.0926	13.44	0.27	
9	.0002	-0.01	-0.07	.0918	13.32	-0.53	
* 10	.0002	-0.01	-0.07	.0928	13.47	0.47	
11	.0002	-0.03	-0.20	.0930	13.41	0.07	
12	.0002	-0.03	-0.20	.0924	13.31	-0.09	
13							
14	.0002	-0.03	-0.20	.0936	13.49	0.60	
15							
16							13.4
17	.0002	-0.03	-0.20	.0918	13.23	-1.13	
18	.0003	-0.02	-0.13	.0922	13.29	-0.73	
* 19	.0002	-0.03	-0.20	.0922	13.29	-0.73	
20	.0004	-0.01	-0.07	.0915	13.20	-1.33	
21	.0003	-0.02	-0.13	.0913	13.17	-1.53	
22	.0003	-0.02	-0.13	.0917	13.21	-1.27	
23							
24	.0002	-0.03	-0.20	.0933	13.45	0.33	
25	.0002	-0.03	-0.20	.0928	13.40	0.00	
26	.0001	-0.05	-0.33	.0925	13.35	-0.33	
* 27	.0001	-0.04	-0.27	.0930	13.42	0.13	
28	.0002	-0.02	-0.13	.0928	13.38	-0.13	
29	.0002	-0.02	-0.13	.0924	13.33	-0.47	
10-30-81	.0002	-0.02	-0.13	.0759	10.50	-0.33	
31							10.55

- NO DATA
* Both 3pt & 5pt data (USED 5pt data)
* 5pt data only

	ZERO	SPAN
Σd_i	-3.58	-5.13
$\bar{d}_i$	-0.16	-0.22
S_i	0.07	0.82
UPL	-0.02%	1.39%
LPL	-0.30%	-1.83%

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Monitor: INLET O2/MSA
Month: OCTOBER

Range: 0-15%

$mx+b=y$

	ZERO			SPAN			
DATE	VOLTAGE	CONC	d_i(%)	VOLTAGE	CONC	d_i(%)	SPAN CONC
10-1-81	.0001	-0.03	-0.20	.0726	10.46	-0.60	
2	.0003	-0.00	-0.00	.0724	10.43	-0.80	
3	—	—	—	—	—	—	
4	—	—	—	—	—	—	
5	.0002	-0.02	-0.13	.0733	10.56	0.07	10.55
6	.0001	-0.03	-0.20	.0735	10.59	0.27	
7	—	—	—	—	—	—	
* 10-8-81	.0002	-0.02	-0.13	.0708	10.20	-2.33	
9							
10							
11							
12							
13							
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- NO DATA
* Both 3pt & 5pt data (USED 5pt data)
* 5pt data only

	ZERO	SPAN
Σd_i	-0.66	-3.39
$\bar{d}_i$	-0.13%	-0.68
S_i	0.08%	1.03
UPL	0.03%	1.34%
LPL	-0.29%	-2.70%

MSA MODEL 802

OUTLET O_2

August, September, October*
1981

*Test program was only in progress first 8 days of October.

Monitor: OUTLET O_2 / MSA

Month: AUGUST

Range: 0-15%

$Mx+b=y$

	DATE	ZERO VOLTAGE	ZERO CONC	ZERO d_i(%)	SPAN VOLTAGE	SPAN CONC	SPAN d_i(%)	SPAN CONC %
	1	.0001	0.04	0.26	.1028	13.63	1.53	
	2	.0003	0.06	0.40	.1009	13.38	-0.13	
*	3	.0001	0.04	0.26	.1010	13.39	-0.07	13.4
	4	.0006	0.05	0.33	.1013	13.29	-0.73	
	5	.0005	0.04	0.26	.1009	13.24	-1.06	
	6	.0002	0.00	0.00	.1013	13.29	-0.73	
	7	.0002	0.00	0.00	.0998	12.95	-3.00	
	8	.0005	0.04	0.26	.1020	13.12	-2.53	
‡	9	.0002	0.04	0.26	.1030	13.66	1.07	
	10	.0003	0.03	0.20	.1010	13.23	-1.80	
	11	.0004	0.03	0.20	.1013	13.45	-0.33	
	12	.0007	0.02	0.13	.1044	13.67	1.13	
‡	13	.0003	0.03	0.20	.1034	13.54	0.26	
	14	.0000	0.01	0.07	.1020	13.47	-0.70	
	15	.0005	0.08	0.53	.1004	13.29	-1.40	
	16	.0002	0.04	0.26	.1011	13.38	-0.80	
	17	.0003	0.05	0.33	.1011	13.38	-0.80	13.5
	18	.0002	0.04	0.26	.1017	13.46	-0.26	
-	19							
	20	.0007	0.04	0.26	.1013	13.41	-0.60	
	21	.0002	0.04	0.26	.1014	13.42	-0.53	
-	22							
*	23	.0002	0.03	0.20	.1014	13.46	-0.27	
	24	.0002	0.05	0.33	.1015	13.616	1.13	
	25	.0001	0.03	0.20	.1013	13.603	0.86	
	26	.0003	0.06	0.40	.1011	13.61	0.73	
	27	.0007	0.05	0.33	.1007	13.56	0.40	
	28	.0003	0.06	0.40	.0992	13.36	-0.93	
*	29	.0002	0.05	0.33	.1009	13.32	-1.20	
	30	.0003	0.05	0.33	.1014	13.38	-0.80	
	31	.0002	0.04	0.26	.1000	13.34	-1.06	

- NO DATA

* Both 3pt & 5pt data (USED 5pt data)

* 5pt data only

	ZERO	SPAN
Σd_i	7.31	-11.92
$\bar{d}_i$	0.26	-0.42
S_i	0.11	1.06
UPL	0.48%	1.66%
LPL	-0.04%	-2.50%

Monitor: OUTLET O_2/MSA
Month: September

ABROLA
Range: 0-15%

$mx+b=y$

	ZERO			SPAN			
DATE	VOLTAGE	CONC	d_i(%)	VOLTAGE	CONC	d_i(%)	SPAN CONC
1	.0003	0.06	0.40	.1003	13.38	-0.80	
2							
3	.0003	0.06	0.40	.1007	13.43	-0.46	
4	.0003	0.06	0.40	.1009	13.46	-0.26	
5	.0003	0.06	0.40	.1043	13.90	2.67	
6	.0006	0.10	0.66	.1022	13.63	0.86	
7	.0003	0.06	0.40	.1115	14.87	9.13	
8	.0002	0.04	0.26	.1022	13.63	0.86	
9	.0003	0.06	0.40	.1035	13.81	2.06	
# 10	.0003	0.06	0.40	.1034	13.79	1.93	13.5
11	.0002	0.02	0.13	.1040	13.70	1.33	
12							
13							
14	.0002	0.02	0.13	.1036	13.65	1.00	
15							
16							
17	.0003	0.03	0.20	.1013	13.35	-1.00	
3* 18	.0003	0.03	0.20	.1016	13.39	-0.73	
* 19	.0002	0.03	0.20	.1015	13.54	0.27	
20	.0008	0.10	0.66	.1005	13.40	-0.66	
21	.0004	0.05	0.33	.1002	13.36	-0.93	
22	.0004	0.05	0.33	.0775	10.33	-0.80	
23							
24	.0004	0.05	0.33	.0786	10.48	0.20	10.45
25	.0004	0.05	0.33	.0780	10.40	-0.33	
26	.0004	0.05	0.33	.0773	10.30	-1.00	
* 27	.0002	0.03	0.20	.1010	13.45	-0.33	13.5
* 28	.0004	0.03	0.20	.0781	10.41	-0.26	
29	.0003	0.02	0.13	.0778	10.37	-0.53	
30	.0004	0.03	0.20	.0778	10.37	-0.53	10.45
31							

- NO DATA
* Both 3pt & 5pt data (USED 5pt data)
* 5pt data only

	ZERO	SPAN
Σd_i	7.62	11.19
$\bar{d}_i$	0.37	0.47
S_i	0.14	2.11
UPL	0.60%	4.60%
LPL	0.14%	3.66%

Monitor: OUTLET O_2 / MSA
Month: OCTOBER

Range: 0-15%

DATE	ZERO VOLTAGE	ZERO CONC	ZERO d_i(%)	SPAN VOLTAGE	SPAN CONC	SPAN d_i(%)	SPAN CONC
10-1-81	.0003	0.02	0.13	.0780	10.39	-0.40	
2	.0004	0.03	0.20	.0787	10.44	0.26	10.45
3							
4							
5	.0003	0.02	0.13	.0784	10.44	-0.026	
6	.0003	0.02	0.13	.0791	10.54	0.60	
7							
10-8-81	.0003	0.04	0.27	.0779	3.74	0.13	372
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							

- NO DATA
* Both 3pt & 5pt data (used 5pt data)
* 5pt data only

	ZERO	SPAN
Σd_i	0.86	0.53
$\bar{d}_i$	0.17	0.11
S_i	0.06	0.37
UPL	0.29%	0.84%
LPL	-0.05%	0.62%

HORIBA PIR 2000

OUTLET CO_2

August, September, October*
1981

***Test program was only in progress first 8 days of October.**

Monitor: OUTLET CO_2 / Horiba
Month: August

A.B. Brown
Range: 0-20%

$ax^2+bx+c=y$

	ZERO			SPAN			SPAN CONC
DATE	VOLTAGE	CONC	di(%)	VOLTAGE	CONC	di(%)	
8-1-81	-.0075	0.18	0.90	4.9709	18.45	0.75	
2	-.0112	0.16	0.80	4.9067	18.29	-0.05	
* 3	-.00606	0.15	0.75	4.8860	17.52	-3.90	
4	-.0091	0.15	0.75	4.9194	17.63	-3.35	
5	-.0080	0.15	0.75	4.9502	17.70	-3.00	
- 6							
7	-.0377	0.03	0.15	4.9090	17.60	-3.50	
8	-.0116	0.13	0.65	4.9390	17.65	-3.25	
# 9	-.0081	0.15	0.75	5.3800	17.85	-2.25	
10	-.0123	0.20	1.00	5.0820	17.76	-2.70	
11	-.0138	0.18	0.90	5.1620	17.83	-2.35	
12	-.0117	0.19	0.95	5.19160	18.02	-1.40	
13	-.0157	0.17	0.85	5.1550	17.93	-1.85	18.3
# 14	-.0111	0.22	1.10	5.1450	-17.816	-2.20	
15	-.0154	0.20	1.00	5.0990	17.81	-2.45	
16	-.0319	0.13	0.65	5.1910	17.88	-2.10	
17	-.0138	0.21	1.05	5.1770	17.99	-1.55	
18	-.0148	0.20	1.00	5.2100	18.07	-1.15	
- 19							
20	-.0212	0.18	0.90	5.2313	18.10	-1.00	
21	-.02016	0.18	0.90	5.2640	18.20	-0.5	
- 22							
* 23	-.0168	0.19	0.95	5.2470	18.18	-0.60	
24	-.0204	0.19	0.95	5.3396	18.14	-0.80	
25	-.0220	0.19	0.95	5.3310	18.09	-1.05	
26	-.0225	0.18	0.90	5.3249	18.10	-1.00	
27	-.0213	0.19	0.95	5.3112	18.07	-1.15	
28	-.0221	0.19	0.95	5.3288	18.11	-0.95	
29	-.0223	0.19	0.95	5.3020	18.05	-1.25	
* 30	-.0212	0.18	0.90	5.3740	18.02	-1.40	
8-31-81	-.02166	0.22	1.10	5.4160	17.99	-1.55	

- NO DATA
Both 3pt & 5pt data (used 5pt data)
* 5pt data only

	ZERO	SPAN
Σd_i	24.40	-47.55
$\bar{d}_i$	0.67	-1.62
S_i	0.18	1.22
UPL	1.23%	0.78%
LPL	-0.51%	-4.02%

Monitor: OUTLET CO_2/HORIBA
Month: September
Range: 0-20%

$ax^2+bx+c=y$

	ZERO			SPAN			
DATE	VOLTAGE	CONC	d_i(%)	VOLTAGE	CONC	d_i(%)	SPAN CONC
1	-.0254	0.22	1.10	5.3390	17.82	-2.40	
- 2							
3	-.02160	0.22	1.10	5.4602	17.99	-1.55	
4	-.0271	0.21	1.05	5.4520	18.06	-1.20	
5	-.0272	0.21	1.05	5.6330	18.44	0.70	
6	-.0278	0.21	1.05	5.2850	17.70	-3.00	
7	-.02764	0.21	1.05	5.7880	18.75	2.25	
8	-.0281	0.21	1.05	5.5730	18.32	0.10	18.3
9	-.0295	0.20	1.00	5.6030	18.45	0.75	
‡ 10	-.0334	0.19	1.00	5.6230	18.26	-0.34	
11	-.0305	0.21	1.05	5.7070	18.19	-0.55	
- 12							
- 13							
14	-.0309	0.21	1.05	5.6420	18.016	-1.20	
- 15							
- 16							
17	-.0325	0.20	1.00	5.7571	18.29	-0.05	
18	-.0343	0.20	1.00	5.8010	18.38	0.40	
* 19	-.0307	0.21	1.05	5.7860	18.161	-1.36	
20	-.0317	0.17	0.85	5.7276	17.89	-2.05	
21	-.03168	0.15	0.75	5.7401	17.92	-1.90	
22	-.0385	0.14	0.70	4.1250	14.18	-0.10	
- 23							
24	-.0390	0.14	0.70	4.2246	14.44	1.20	14.2
25	-.0401	0.13	0.65	4.2015	14.38	0.90	
26	-.0383	0.14	0.70	4.1837	14.33	0.65	
* 27	-.03516	0.15	0.75	5.9790	18.37	0.98	18.3
28	-.0420	0.11	0.55	4.2358	14.45	1.25	
29	-.03916	0.11	0.55	4.2479	14.38	0.90	14.2
30	-.0418	0.10	0.50	4.2376	14.35	0.75	
31							

- NO DATA
‡ Both 3pt & 5pt data (used 5pt data)
* 5pt data only

	ZERO	SPAN
Σd_i	21.30	-4.87
$\bar{d}_i$	0.89	-0.20
S_i	0.21	1.37
UPL	1.29%	2.49%
LPL	-0.47%	-2.69%

Monitor: outlet CO_2 / Horiba
Month: October
Range: 0-20%

		ZERO			SPAN			
	DATE	VOLTAGE	CONC	d_i(%)	VOLTAGE	CONC	d_i(%)	SPAN CONC
	10-1-81	-.0401	0.11	0.55	4.256	14.40	1.00	14.2 %
	2	-.0414	0.10	0.50	4.319	14.56	1.80	
	3							
	4	-						
	5	-.0411	0.10	0.50	4.2976	14.51	1.55	
	6	-.0419	0.10	0.50	4.345	14.62	2.10	
	7							
*	10-8-81	-.0412	0.10	0.50	1.197	4.92	-0.95	5.11
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20							
	21							
	22							
	23							
	24							
	25							
	26							
	27							
	28							
	29							
	30							
	31							

- NO DATA
* Both 3pt & 5pt data (used 5pt data)
* 5pt data only

5=N

	ZERO	SPAN
Σd_i	2.55	5.50
$\bar{d}_i$	0.51	1.10
S_i	0.02	1.22
UPL	0.55%	4.01%
LPL	0.47%	1.81%

SECTION 5

SIGECO OPERATIONS DATA

UNIT OPERATING LOGS

Boiler Operations

Scrubber Operations

CHEMICAL ANALYSES DATA

Routine Analyses--Graphic

Routine Analytical Data

Filter Cake Analytical Data

COAL REPORTS

SIGECO Monthly Reports (Aug., Sept., Oct., 1981)

Supplier Reports

UNIT OPERATING LOGS

TABLE 69

Boiler Operating Logs

July 31 to October 9, 1981

EMISSION REPORT

H.B. BROWN #1

DATE JUL 31 1981

Day 12.

TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O2	PPM SO2	HOURLY AVG. LBS/MBTU	3 HR. AVG. LBS/MBTU	ST TEMP.	GROSS M.W.
1 A.M.	4.0	80	52	7.7	104	.31	.29	154	108
2 A.M.	3.8	82	56	7.9	93	.28	.29	148	107
3 A.M.	3.9	82	54	7.9	95	.29	.29	148	105
4 A.M.	4.0	82	51	8.0	93	.28	.28	148	107
5 A.M.	4.5	81	56	8.0	83	.25	.27	148	107
6 A.M.	4.2	84	57	8.0	96	.26	.26	149	106
7 A.M.	4.2	79	58	8.1	83	.26	.25	149	108
8 A.M.	4.3	81	52	8.2	150	.25	.25	146	108
9 A.M.	4.0	92	54	8.0	150	.29	.26	154	106
10 A.M.	4.0	81	51	8.0	130	.31	.28	153	107
11 A.M.	4.0	81	54	7.9	140	.33	.31	156	107
12 Noon	4.7	90	52	7.8	160	.36	.33	159	108
1 P.M.	3.5	78	52	7.7	150	.37	.35	154	107
2 P.M.	4.0	90	52	7.6	145	.36	.36	154	108
3 P.M.	3.5	78	52	7.7	150	.37	.36	155	107
4 P.M.	3.7	80	51	7.6	127	.36	.37	155	106
5 P.M.	3.5	78	53	7.7	131	.37	.38	156	106
6 P.M.	3.8	80	51	7.2	125	.36	.35	159	112
7 P.M.	3.6	78	50	7.1	113	.34	.32	154	115
8 P.M.	3.5	85	50	7.3	91	.30	.26	153	108
9 P.M.	3.2	—	51	7.4	96	.28	.28	153	107
10 P.M.	3.4	—	49	7.1	97	.26	.27	155	112
11 P.M.	3.4	—	49	7.5	99	.27	.28	154	113
12 MN.	3.7	—	47.5	7.4	93.4	.27	.27	153	109

12AM–8AM SHIFT — JE

8AM–4PM — JLW

4PM–12MN — Nobe

		AVAILABLE	NOT AVAILABLE	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	M M
RECIRC. PUMP	W		✓	M M
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520	✓		
	530		✓	M M
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	
RECIRC. PUMP	W		✓	
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520	✓		
	530		✓	
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	M M
RECIRC. PUMP	W		✓	M M
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520	✓		

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

PLANT MANAGER: BP

HOURS COMPLIANCE: 24

HOURS NON COMPLIANCE: 0

EMISSION REPORT

R.D. Brown #1

Day 213.

DATE: AUG 01 1981

	TIME	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack % O2	PPM SO2	Hourly Avg. Lbs/MBTH.	3 Hr. Avg. Lbs/MBTH.	ST Temp.	Gross M.W.	
12MN-8AM Shift	1 A.M.	3.8	100	47	7.4	86	.25	.26	150	107	
	2 A.M.	3.8	100	51	7.6	83	.25	.25	149	110	
	3 A.M.	17	22	65	9.0	61	.20	.23	182	0	X
	4 A.M.	90	82	65	10.0	41	.15	.19	214	-5	X
	5 A.M.	4.1	76	65	9.5	488	1.63	.66	232	34	
	6 A.M.	4.5	78	65	6.1	80	.19	.65	260	103	
	7 A.M.	4.5	75	65	5.9	18	.00	.60	246	112	
	8 A.M.	6.5	75	64	7.5	25	—	—	168	112	
8AM-4PM.	9 A.M.	6.5	100	64	7.2	25	—	—	148	112	
	10 A.M.	7	100	64	5.5	25	—	—	158	122	
	11 A.M.	6	100	63	5.9	20	—	—	160	125	
	12 Noon	5	100	63	6.5	15	—	—	152	125	
	1 P.M.	6.5	100	64	3.4	25	—	—	182	220	X
	2 P.M.	6	100	64	4.1	25	—	—	189	220	X
	3 P.M.	6	100	64	4	20	—	—	190	222	X
	4 P.M.	3.2	100	65	3.6	—	—	—	191	224	
	5 P.M.	3.4	100	65	3.7	—	—	—	192	225	
	6 P.M.	3.4	100	65	3.4	—	—	—	195	232	
	7 P.M.	4.0	100	65	2.9	—	—	—	200	240	
	8 P.M.	4.0	100	64	4.1	—	—	—	186	217	
	9 P.M.	3.5	100	64	4.4	—	—	—	183	194	
	10 P.M.	3.5	100	64	5.8	—	—	—	172	171	
	11 P.M.	3.5	100	64	6.9	—	—	—	148	107	
	12 MN.	3.5	3.5	64.6	7.6	—	—	—	144.3	105	

		Available	Not Available	Remarks
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	MM
Recirc. Pump	W		✓	MM
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520	✓		
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	
Recirc. Pump	W		✓	
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520	✓		
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	MM
Recirc. Pump	W		✓	MM
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520	✓		

Hours Surge Tank X unit tip 232 AM overflowed each shift X Damper -100% - 0

12-8 0

8-4 0

4-12 0

Plant Manager:

Hours Compliance: 5

Hours Non Compliance: 17

Unit Off Line 2

Compliance 22

EMISSION REPORT.

H.B. Brown #1

DATE: AUG 2 1981

TIME	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack Opacity % O2	PPM SO2	Hourly Avg. LBS/MBTH.	3 Hr. Avg. LBS/MBTH.	ST. TEMP.	Gross M.W.
1 A.M.	3.8	3.5	64	8.0	16.4	.00	.00	147	104
2 A.M.	3.8	3.2	64	8.1	17.1	.00	.00	146	107
3 A.M.	3.8	—	64	8.1	18.2	.00	.00	151	110
4 A.M.	3.2	—	64	8.3	16.8	.00	.00	153	103
5 A.M.	3.2	—	64	8.3	16.3	.00	.00	153	107
6 A.M.	3.2	—	64	8.2	17.6	.00	.00	159	111
7 A.M.	3.5	—	64	8.4	16.5	.00	.00	147	110
8 A.M.	3.5	—	64	8.4	30	.00	.00	151	114
9 A.M.	3.3	—	64	8.4	45	.00	.00	155	114
10 A.M.	3.4	—	63	8.3	40	.00	.00	155	111
11 A.M.	3.4	—	64	8.4	10	.00	.00	154	111
12 Noon	3.5	—	64	7.2	5	.00	.00	161	125
1 P.M.	3.6	—	65	6.4	5	.00	.00	171	156
2 P.M.	3.6	—	65	5.9	2	.00	.00	175	186
3 P.M.	3.5	—	64	5.6	0	.00	.00	181	189
4 P.M.	3.8	—	64	4.8	.4	—	—	187	205
5 P.M.	4.2	—	64	3.6	.4	—	—	197	227
6 P.M.	3.7	—	64	3.0	0	—	—	203	250
7 P.M.	3.5	—	64	4.2	0	—	—	192	217
8 P.M.	3.2	—	64	4.6	0	—	—	191	182
9 P.M.	3.5	—	64	4.7	0	—	—	177	187
10 P.M.	3.4	—	64	4.7	0	—	—	176	181
11 P.M.	3.3	—	64	5.0	0	—	—	174	174
12 MN.	3.5	—	64.5	6.6	0	0	0	164	135

12 Mid - 8 A.M. SHIFT

8 A.M. - 4 P.M.

4 P.M. - 12 Mid

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

Opacity 24

HOURS COMPLIANCE: 11

HOURS NON COMPLIANCE: 13

PLANT MANAGER: BB

South side Unit on with no scrubber due to recirc pumps

114

		Available	Not Available	Remarks
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	11 11
Recirc. Pump	W		✓	11 11
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520	✓		
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	
Recirc. Pump	W		✓	
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520	✓		
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	M.M.
Recirc. Pump	W		✓	M. M.
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520	✓		
	530	✓		

REPORT
R.E. Brown #1

TIME	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack % O_2	PPM SO_2	Hourly Av.	LBS/MBTU 3 Hr. Ave.	LBS/MBTU	Stack T. F.	Gross M.W.
1 A.M.	3.2	—	64	8.4	—	—	—	157.6	175	
2 A.M.	3.2	—	64	8.7	—	—	—	151	109	
3 A.M.	3.5	—	63	8.7	—	—	—	154.3	106	
4 A.M.	3.4	—	64	8.7	—	—		152.4	106	
5 A.M.	3.3	—	64	8.7	—	—	—	153	103	
6 A.M.	3.7	—	64	8.2	—	—	—	153	106	
7 A.M.	3.5	—	64	8.4	—	—	—	151.3	106	
8 A.M.	3.5	—	64	8.7	50	—	—	153	110	
9 A.M.	3.3	—	65	8.3	20	—	—	151	111	
10 A.M.	3.5	—	64	6.5	30	—	—	168	165	
11 A.M.	3.5	—	64	4.7	10	—	—	179	220	
12 Noon	3.7	—	64	4.3	40	—	—	196	242	
1 P.M.	3.7	—	65	5.2	20	—	—	192	208	
2 P.M.										
3 P.M.	3.5	—	64	6.7	80	—	—	163	152	
4 P.M.	3.2	—	64	6.7	—	—	—	161	141	
5 P.M.	3.2	—	64	7.5	—	—	—	155	110	
6 P.M.	3.8		64	6.5	—	—	—	194	110	
7 P.M.	3.7	—	64	5.6	—	—	—	251	110	
8 P.M.	3.2	—	64	6.5	—	—	—	209	110	
9 P.M.	3.0	—	64	7.2	—	—	—	170	110	
10 P.M.	3.2	—	64	7.3	—	—	—	169	109	
11 P.M.	3.4	—	64	7.2	—	—	—	163	111	
12 MN.	3.5	—	64.6	7.4	—	—	—	150.7	112	

12md-8am — SHIFT — J PE

8AM-4PM. — O. Hill

4-12 — J. Lin

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

Scrubber off totally due to Lime transfer pump tripped at 5:40 P.M. — 6:25 P.M.

HOURS COMPLIANCE: 11

HOURS NON COMPLIANCE: 13

OPERATOR Compliance 24

PLANT MANAGER: BO

DATE: AUG 3 1981

		AVAILABLE	NOT AVAILABLE	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	MM
RECIRC. PUMP	W		✓	MM
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520	✓		
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	MM
RECIRC. PUMP	W		✓	MM
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	MM
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓	✓	MM
SOUTH SCRUBBER	E		✓	MM
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	MM
	530			

EMISSION REPORT

H.B. Brown #1

DATE: AUG 4 1981

TIME	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack % O_2	PPM SO_2 Hourly Avg	LBS/MBTU 3 HR. Avg.	LBS/MBTU	St. Temp.	Gross M.W.
1 A.M.	3.1	—	64	7.7	159	.00	.00	151	114
2 A.M.	3.5	—	64	7.9	153	.00	.00	151	109
3 A.M.	3.9	—	64	8.1	156	.00	.00	152	109
4 A.M.	3.5	—	64	8.1	159	.00	.00	153	111
5 A.M.	3.9	—	64	8.1	171	.00	.00	154	111
6 A.M.	3.2	—	64	8.3	162	.00	.00	154	111
7 A.M.	3.2	—	64	8.3	160	.00	.00	152	108
8 A.M.	3.3	3.2	64	8.3	40	.00	.00	153	111
9 A.M.	3.3	3.2	64	8.2	45	.00	.00	153	111
10 A.M.	3.3	3.5	64	8.3	45	.00	.00	153	111
11 A.M.	3.5	0	63	7.8	20	.00	.00	154	123
12 Noon	3.0	0	64	6.4	10	.00	.00	164	160
1 P.M.	3.3	0	63	4.9	5	.00	.00	167	190
2 P.M.	3.8	0	64	3.8	2	.00	.00	183	211
3 P.M.	3.6	0	64	3.7	2	.00	.00	185	214
4 P.M.	3.8	0	64	3.3	—	.00	.00	186	213
5 P.M.	3.4	0	64	4.1	—	.00	.00	185	200
6 P.M.	3.2	0	64	5.5	—	.00	.00	165	161
7 P.M.	3.4	0	64	5.6	—	.00	.00	161	146
8 P.M.	3.2	0	64	5.4	—	.00	.00	177	152
9 P.M.	3.2	0	64	5.7	—	.00	.00	182	147
10 P.M.	3.4	0	64	6.7	—	.00	.00	161	141
11 P.M.	3.2	0	64	8.0	—	.00	.00	147	109
12 MN.	3.5	—	64.3	7.8	—	0	0	145	106

12 Mid - 8 A.M. SHIFT — J PE

8 A.M. - 4 P.M. — D Hill

4 P.M. - 12 Mid. — T.N.

		Available	Not Available	Remarks
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	mm
Recirc. Pump	W		✓	mm
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520	✓		
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	mm
Recirc. Pump	W		✓	mm
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520		✓	mm
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	mm
Recirc. Pump	W		✓	mm
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520		✓	mm
	530	✓		

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

OPACITY 24 HRS.

PLANT MANAGER: BC

HOURS COMPLIANCE: 18*

HOURS NON COMPLIANCE: 6

* - maximum amount of compliance may actually be less

D Hill

116

ISSION REPORT

A.B. Brown #1

DATE: AUG 5 1981

TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O_2	PPM SO_2	HOURLY AVG. LBS/MBTU	3 HR. AVG. LBS/MBTU	S & T TEMP.	GROSS M.W.
1 A.M.	3.2	—	64	8.1	15	.00	.00	144	109
2 A.M.	3.2	—	64	7.9	13	.00	.00	145	103
3 A.M.	3.8	—	64	7.8	16	.00	.00	146	117
4 A.M.	3.8	—	64	7.8	14	.00	.00	145	107
5 A.M.	3.8	—	64	7.8	16	.00	.00	146	113
6 A.M.	3.7	—	64	7.9	14	.00	.00	145	111
7 A.M.	3.7	—	64	7.9	17	.00	.00	145	113
8 A.M.	3.5	—	62	8.0	40	.00	.00	145	114
9 A.M.	3.3	—	64	7.8	60	.00	.00	146	114
10 A.M.	3.0	—	64	7.2	65	.00	.00	186	113
11 A.M.	3.1	—	63	7.3	235	.17	.05	151	135
12 Noon	3.2	—	64	6.5	225	.50	.22	158	155
1 P.M.	3.5	—	64	5.7	295	.66	.44	190	166
2 P.M.	3.8	—	64	5.7	280	.71	.62	169	168
3 P.M.	3.5	—	64	8.0	200	.69	.68	164	122
4 P.M.	3.5	—	64	8.2	150	.61	.43	150	115
5 P.M.	3.5	—	64	8.4	200	.38	.47	146	113
6 P.M.	3.5	—	64	6.7	180	.32	.31	151	157
7 P.M.	3.5	—	64	6.5	200	.37	.32	151	160
8 P.M.	4.0	—	64	6.6	190	.21	.29	144	162
9 P.M.	3.5	—	64	8.2	190	.39	.32	156	110
10 P.M.	3.5	—	64	8.4	200	.55	.38	134	108
11 P.M.	3.5	—	64	9.4	200	.54	.49	153	110
12 M.N.	3.8	—	64	8.2	177	.54	.54	153	110

12AM–8AM SHIFT — JPE

8AM–4PM. — D. Hall

4PM–12 — [illegible]

12-8 SHIFT — [illegible]

217

		AVAILABLE	NOT AVAILABLE	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	mm
RECIRC. PUMP	W		✓	mm
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	mm
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	mm
RECIRC. PUMP	W		✓	mm
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	mm
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	
RECIRC. PUMP	W		✓	
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

PLANT MANAGER: RD

HOURS COMPLIANCE: 22

HOURS NON COMPLIANCE: 2

-One scrubber not capable of full flow at >160 MW

117

REPORT

A.B. Brown #1

DATE: AUG 6 1981

	TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O2	PPM SO2	HOURLY AVG LBS/MBTU	3 HR. AVG. LBS/MBTU	S. TEMP. °F	GROSS M.W.
12 md - 8 a.m.	1 A.M.	4.0	0.8	64	8.4	139	.43	.50	146	108
	2 A.M.	4.0	0.8	64	8.3	106	.33	.43	143	111
SHIFT	3 A.M.	4.0	0.8	64	8.5	74	.23	.33	141	109
	4 A.M.	3.8	0.8	64	8.5	63	.20	.25	140	109
JPE	5 A.M.	3.9	0.8	64	8.5	58	.19	.20	141	109
	6 A.M.	3.9	0.8	64	8.6	63	.20	.19	140	112
	7 A.M.	3.9	0.8	64	8.6	63	.20	.19	141	110
	8 A.M.	3.5	0.6	64	8.6	63.2	.20	.19	141.2	110
8 AM - 4 P.M.	9 A.M.	2.6	—	64	8.7	61.5	.19	.19	141.4	111
	10 A.M.	—	O							
	11 A.M.	—	S E W,	T R I P						
DH	12 Noon	4.3	100+	64	4.2	429	1.17	.75	177.4	117
	1 P.M.	4.2	100+	64	3.5	255	.56	.82	155	232
	2 P.M.	4.5	100+	64	3.9	210	.47	.73	156.6	254
	3 P.M.	4.5	100+	64	4.9	185	.44	.49	154.4	251
	4 P.M.	4.5	100	64	5	240	.45	.45	156	253
	5 P.M.	4.5	100	64	5.2	160	.41	.43	154	235
	6 P.M.	4.5	100	64	5.0	225	.26	.37	147	235
	7 P.M.	4.2	100	63	5.3	180	.21	.29	147	215
	8 P.M.	3.5	100	64	7.9	220	.23	.23	147	110
JG	9 P.M.	3.2	100	64	7.4	220	.44	.29	158	110
	10 P.M.	3.2	100	64	7.9	200	.52	.39	154	108
	11 P.M.	3.0	100	64	8	200	.50	.48	152	108
	12 MN.	3.2	100	64	7.7	152	.48	.45	149	110

218

		AVAILABLE	NOT AVAILABLE	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	MM
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	MM
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603		✓	
FILTERS	510	✓		
	520		✓	
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603		✓	
FILTERS	510	✓		
	520		✓	
	530	✓		

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

PLANT MANAGER:

HOURS COMPLIANCE:

HOURS NON COMPLIANCE:

M.E.I.C.A.T.
M.B.E.R.C.O.W.N. #1

DATE: AUG. 1 - 1501

TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O2	PPM SO2	HOURLY AVG LBS/MBTU	3 HR. AVG LBS/MBTU	STACK TEMP	GROSS M.W.
1 A.M.	3.2	1.0	64.5	7.7	155.7	.46	.46	149	109
2 A.M.	3.2	1.6	64	7.7	156	.45	.45	149	111
3 A.M.	3.2	1.8	64.5	7.7	167	.46	.49	150	108
4 A.M.	3.5	1.8	64	7.9	166	.48	.47	149	111
5 A.M.	3.8	1.8	64	7.8	168	.48	.48	149	109
6 A.M.	3.6	1.8	64	7.8	160	.48	.48	149	108
7 A.M.	3.5	1.8	64	7.8	160	.47	.47	149	110
8 A.M.	3.5	3.2	64	8.1	210	.46	.47	148	110
9 A.M.	3.4	3.64 RECORDER PEN	64	8.1	170	.46	.46	147	110
10 A.M.	3.4	RECORDER PEN	64	8.1	190	.46	.46	147	111
11 A.M.	3.5	RECORDER PEN	64	7.7	135	.44	.45	146	114
12 Noon	3.5	3.4	63	7.7	220	.49	.46	151	118
1 P.M.	3.9	3.04	64	6.0	220	.55	.49	153	165
2 P.M.	3.9	3.04	64	5.8	250	.33	.45	144	170
3 P.M.	4.0	0	64	5.2	245	.34	-40	147	200
4 P.M.	4	0	64	5.2	245	.27	.31	145	200
5 P.M.	4	0	64	5.9	225	.23	.28	145	187
6 P.M.	3.5	0	64	7	200	.23	.24	143	130
7 P.M.	3.5	0	63	7.4	210	.37	.27	151	117
8 P.M.	3.5	0	63	7.4	210	.41	.32	147	115
9 P.M.	3.5	0	63	7.2	210	.40	.39	147	117
10 P.M.	3.5	0	64	7.2	210	.39	.40	146	120
11 P.M.	3.5	1.0	64	7.1	215	.42	.42	152	121
12 MN.	3.5	1.2	64	7.0	400	.56	.47	153	101

12 AM - 8 AM SHIFT

8 AM - 4 P.M.

4 P.M. - 12 MN.

219

		AVAILABLE	NOT AVAIL.	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603		✓	F.M.
FILTERS	510	✓		
	520		✓	M.M.
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	M.M.
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603		✓	M.M.
FILTERS	510	✓		
	520		✓	M.M.
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603		✓	
FILTERS	510	✓		
	520		✓	
	530	✓		

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

OPACITY COMPLIANCE 24 HRS

HOURS COMPLIANCE: 24

HOURS NON COMPLIANCE: 0

(BASED ON STACK TEMP.)

PLANT MANAGER: [signature]

119

EMISSION REPORT

A.B. BROWN #1

AUG 8 1981

220

	TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O_2	PPM SO_2	HOURLY # LBS/MBTU	3 HR. AVG LBS/MBTU	# ICK	TEMP.	GROSS M.W.
12 MN-8 AM SHIFT	1 A.M.	3.8	.8	64	7.3	199	.53	.56	150		111
	2 A.M.	3.9	.6	64	7.4	179	.56	.57	150		111
	3 A.M.	3.4	.6	64	7.3	206	.57	.59	149		110
	4 A.M.	3.4	.6	64	7.2	194	.56	.55	147		110
	5 A.M.	3.8	.8	64	7.2	186	.55	.53	147		111
	6 A.M.	3.8	.8	64	7.3	182	.52	.51	146		109
	7 A.M.	3.7	.7	64	7.2	179	.51	.51	145		109
	8 A.M.	3.6	.8	64	7.5	208	.51	.51	146		114
8AM-4PM.	9 A.M.	3.6	.9	64	7.4	210	.53	.53	149		114
	10 A.M.	3.6	.9	64	7.1	320	.71	.60	161		114
	11 A.M.	3.9	.9	64	7.5	340	1.03	.78	180		110
	12 Noon	3.5	.9	64	7.6	390	.93	.90	165		110
	1 P.M.	3.5	.9	64	7.6	510	1.25	1.11	183		111
	2 P.M.	3.6	1.0	64	8.2	400	.96	1.07	160		111
	3 P.M.	3.8	.0	64	8.0	380	.60	.96	146		111
	4 P.M.	3.5	0	64	8.	350	.53	.69	144		110
	5 P.M.	3.5	0	64	7.9	480	.75	.82	156		110
	6 P.M.	3.5	0	64	7.9	420	.72	.66	151		110
	7 P.M.	3.5	0	63	7.9	402	.71	.72	150		110
	8 P.M.	3.5	0	63	5.9	600	1.09	.94	201		113
	9 P.M.	3.5	0	63	7.9	475	1.59	1.12	201		110
	10 P.M.	3.5	0	63	7.7	500	.75	1.13	152		112
	11 P.M.	3.5	0	63	7.7	490	.81	1.05	150		110
	12 MN.	3.6	0	64	7.6	353	.76	.74	160		111

		AVAILABLE	NOT AVAIL.	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	MM
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603		✓	MM TEM.
FILTERS	510	✓		
	520		✓	MM
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	MM
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	MM
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603		✓	
FILTERS	510	✓		
	520		✓	
	530	✓		

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8

8-4 0

4-12 0

OPACITY COMPLIANCE 100%

HOURS COMPLIANCE: 19

HOURS NON COMPLIANCE: 5

PLANT MANAGER:

MM and SLAKERS off while replacing LINE on 603 SLAKER & CHECKING OUT 601 DUST BAG.

% SCRUBBER OUT OF SERVICE - @ 7:40 PM - in @ 8:50 PM

SEE EQ LOG SHEETS

1 hr

Based on stack temp & Leger flow

120

REPORT

A.B. Brown #1

TIME	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack % O_2	PPM SO_2	Hourly A lbs/MBTU	3 Hr. Ave lbs/MBTU	F Ck	Temp.	Gross M.W.
1 A.M.	3.7	0	6.4	7.5	201	.64	.73	150		111
2 A.M.	3.5	0	6.4	7.5	232	.74	.64	149		
3 A.M.	3.5	0	64	7.5	211	.62	.61	148		110
4 A.M.	3.7	0	64	7.5	182	.59	.53	147		111
5 A.M.	3.5	0	64	7.5	211	.57	.61	147		110
6 A.M.	3.6	0	64	7.4	225	.59	.65	146		110
7 A.M.	3.6	0	64	6.9	315	.70	.87	175		111
8 A.M.	3.8	—	64	7.5	281	.80	.77	152		109
9 A.M.	3.5	—	64	8.0	178	.53	.73	141		114
10 A.M.	3.6	—	64	8.1	144	.43	.58	139		113
11 A.M.	3.5	—	64	8.0	162	.49	.48	145		110
12 Noon	3.8	—	64	8.1	148	.45	.45	141		111
1 P.M.	3.9	—	64	8.0	123	.37	.43	139		115
2 P.M.	3.9	—	64	8.0	132	.40	.40	141		110
3 P.M.	3.8	—	64	8.2	143	.44	.40	144		113
4 P.M.	3.5	—	63	8.4	225	.35	.39	142		113
5 P.M.	3.5	—	64	7.9	225	.47	.41	150		110
6 P.M.	3.5	—	64	7.9	225	.56	.46	150		110
7 P.M.	3.5	—	63	7.8	210	.51	.51	151		110
8 P.M.	3.5	—	63	7.8	190	.52	.53	151		110
9 P.M.	3.5	—	63	7.9	207	.48	.50	152		110
10 P.M.	3.5	—	64	7.9	221	.49	.49	151		110
11 P.M.	3.5	—	64	8	220	.54	.50	151		110
12 MN.	3.5	—	64.5	7.7	142	.42	.47	144.9		110

12 Mid - 8 A.M. SHIFT

8 A.M. - 4 P.M.

4 P.M. - 12 Mid

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 D

8-4 D

4-12 D

OPACITY 24 HRS

HOURS COMPLIANCE: 24

HOURS NON COMPLIANCE: 0

PLANT MANAGER: [signature]

AUG 9 1981

DATE: _____

			Available	Not Available	Remarks
North Scrubber	E		✓		
Recirc. Pump	W		✓		
South Scrubber	E			✓	M.M.
Recirc. Pump	W		✓		
Slakers		601	✓		
		602	✓		
		603		✓	E.M.
Filters		510	✓		
		520		✓	M.M.
		530	✓		
North Scrubber	E		✓		
Recirc. Pump	W		✓		
South Scrubber	E			✓	MM
Recirc. Pump	W		✓		
Slakers		601	✓		
		602	✓		
		603		✓	EM
Filters		510	✓		
		520		✓	MM
		530	✓		
North Scrubber	E		✓		
Recirc. Pump	W		✓		
South Scrubber	E			✓	
Recirc. Pump	W		✓		
Slakers		601	✓		
		602	✓		
		603		✓	
Filters		510	✓		
		520		✓	
		530	✓		

REPORT

N.B. Edgewater #1

AUG 10 1981

222.

	TIME	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack % O_2	PPM SO_2	Hourly # lbs/mbtu	3 Hr. Ave lbs/mbtu	C.K. Temp.	Gross M.W.
12 mid - 8 am Shift John	1 A.M.	3.2	100	64	7.8	118	.35	43	144	111
	2 A.M.	3.2	100	64	8.3	122	.37	37	148	112
	3 A.M.	3.8	100	64	8.4	138	.43	.38	151	113
	4 A.M.	3.4	100	64	8.1	162	.50	.43	151	111
	5 A.M.	3.5	1.8	64	8.4	159	.49	.47	152	110
	6 A.M.	3.8	4.5	64	8.3	191	.59	.52	151	111
	7 A.M.	3.8	.6	64	8.3	187	.58	.55	150	113
8 AM - 4 PM. JE	8 A.M.	12	0	64	8.2	217	.66	.60	151	113
	9 A.M.	12	0	64	7.9	206	.67	.63	151	117
	10 A.M.	13	0	64	4.4	451	1.05	.79	206	188
	11 A.M.	14	0	64	3.8	538	1.20	.97	192	221
	12 Noon	13	0	64	3.5	357	.74	.99	165	248
	1 P.M.	14	0	64	3.9	290	.65	.86	167	258
	2 P.M.	14	0	64	4.1	348	.79	.72	174	265
	3 P.M.	14	0	64	4.5	305	.71	.7	172	261
	4 P.M.	4	0	64	5.2	341	.80	.74	174	205
	5 P.M.	4	0	64	5.4	159	.39	.63	149	205
	6 P.M.	3.8	0	64	5.5	100	.16	.44	142	205
	7 P.M.	3.9	0	64	5.4	100	.13	.22	142	210
	8 P.M.	3.8	0	64	5.6	110	.17	.15	145	190
	9 P.M.	3.9	0	64	5.8	122	.23	.18	148	128
	10 P.M.	4	0	64	5.7	125	.21	.20	147	190
	11 P.M.	4	0	64	6.2	110	.21	.21	146	167
	12 MN.	3.8	0	64	7.7	72	.21	.20	143	130

		Available	Not Available	Remarks
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	M.M.
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603		✓	E.M.
Filters	510	✓		
	520		✓	M.M.
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	M.M.
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603		✓	E.M.
Filters	510	✓		
	520		✓	M.M.
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603		✓	
Filters	510	✓		
	520		✓	
	530	✓		

Hours Surge Tank Overflowed Each Shift

12-8 0

8-4 0

4-12 0

Opacity Compliance: 24

Hours Compliance: 18

Hours Non Compliance: 6

- Based on stack temp, etc.

Pearson false Angle pH.

Plant Manager: JW

Date: _____

122

REPORT

A.B. Brown #1

DATE: AUG 11 1981

TIME	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack Opacity	% O2	PPM SO2	Hourly Avg	LBS/MBTU 3 HR. Avg.	LBS/MBTU	S x	Temp	Gross M.W.
1 A.M.	3.7	1	6.4	8.5	7.0	.22	.21	143	110			
2 A.M.	3.6	1.8	6.4	8.5	6.8	.20	.21	143	110			
3 A.M.	3.8	1.8	6.4	8.3	6.8	.21	.21	142	109			
4 A.M.	3.9	1.8	6.4	8.5	7.2	.22	.21	141	111			
5 A.M.	3.6	1.8	6.4	8.6	6.4	.20	.21	141	109			
6 A.M.	3.6	1.8	6.4	8.5	6.4	.20	.20	141	109			
7 A.M.	3.8	.5	6.4	8.6	6.1	.19	.19	140	109			
8 A.M.	3.8	.5	6.4	8.8	55.5	.18	.19	140.8	109			
9 A.M.	3.8	.3	6.4	8.5	71.3	.23	.20	143.5	135			
10 A.M.	3.8	.3	6.4	6.5	94.9	.24	.21	152.5	182			
11 A.M.	3.8	.3	6.4	6.9	199.1	.49	.31	164.4	146			
12 Noon	3.8	.3	6.4	6.5	90.7	.24	.31	148.5	154			
1 P.M.	3.8	.3	6.4	6.6	90.2	.23	.31	149.2	162			
2 P.M.	3.8	.3	6.4	6.8	84.8	.22	.23	142.1	167			
3 P.M.	3.8	.4	6.4	6.5	89.5	.23	.22	142.7	161			
4 P.M.	3.8	.5	64	6.8	94	.25	.23	146	156			
5 P.M.	3.6	.5	6.4	6.9	110	.30	.26	141	155			
6 P.M.	3.5	.5	64	5.5	122	.35	.29	149	108			
7 P.M.	3.5	0	64	8.1	179	.55	.40	156	110			
8 P.M.	3.5	0	6.3	8.6	210	.65	.51	158	110			
9 P.M.	3.5	0	6.3	9.7	185.7	.58	.57	150	110			
10 P.M.	3.5	0	6.2	9.6	176.2	.55	.59	150	113			
11 P.M.	3.5	0	6.3	9.7	170.6	.53	.55	150	111			
12 MN.	4	—	64.6	8.5	173.7	.54	.52	141.3	110			

12AM-8AM SHIFT

8AM-4PM.

4PM-12MN.

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

Opacity compliance 24 HRS.

HOURS COMPLIANCE: 24

HOURS NON COMPLIANCE: 0

Based on stack temp & concentration

PLANT MANAGER:

223

		Available	Not Available	Remarks
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	m.m
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520		✓	m m
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	m m
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520		✓	m m
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520		✓	
	530	✓		

123

REPORT

A.D. Escamilla #1

224

DATE: JG 12 1981

TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK OPACITY	% O2	PPM SO2	HOURLY AV.	LBS/MATH 3 HR. AVG	LBS/MBTU	P. :X	TEMP.	GROSS M.W.
1 A.M.	3.8	0	64	8.4	171	.53	.53	149	113			
2 A.M.	3.8	0	64	8.5	164	.52	.51	147	111			
3 A.M.	3.6	0	64	8.6	170	.52	.54	147	110			
4 A.M.	3.8	0	64	8.6	170	.54	.52	147	109			
5 A.M.	3.8	0	64	8.7	189	.60	.56	150	111			
6 A.M.	3.9	0	64	8.5	195	.60	.57	149	113			
7 A.M.	3.8	0	64	8.8	192	.61	.60	147	111			
8 A.M.	3.9	0	64	8.9	200	.64	.61	149	109			
9 A.M.	3.8	0	64	8.6	200	.60	.61	148.4	111			
10 A.M.	4.0	0	64	6.7	130	.48	.57	147	141			
11 A.M.	3.8	0	64	7.5	100	.26	.44	140.4	163			
12 Noon	3.6	0	64	8.6	115	.27	.33	141.2	117			
1 P.M.	3.6	0	64	8.8	130	.43	.32	148.8	108			
2 P.M.	3.5	0	64	8.4	210	.68	.46	156.4	108			
3 P.M.	3.9	0	64	5.8	150	.55	.55	150.7	115			
4 P.M.	4.1	4.2	64	4.7	195	.35	.52	151	200			
5 P.M.	4.0	4.3	64	4.9	145	.27	.39	143	210			
6 P.M.	4.0	4.5	65	4.8	145	.22	.28	144	210			
7 P.M.	4.0	4.6	64	4.2	290	.31	.26	148	211			
8 P.M.	4.2	30+	63	3.9	290	.31	.28	146	214			
9 P.M.	.8	30+	63	4.1	190	.42	.45	151	243			
10 P.M.	.9	30+	64	6.1	210	.32	.45	148	185			
11 P.M.	.0	30+	64	7.7	150	.33	.36	147	138			
12 MN.	.0	100	64	7.8	173	.54	.40	159	115			

12MN-8AM SHIFT

8AM-4PM.

4-12

		AVAILABLE	NOT AVAILABLE	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	mm
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	mm
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	mm
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	mm
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	mm
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	mm
	530	✓		

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

Opacity 24 HRS.

Reference 4 hr. Avg.

PLANT MANAGER: [illegible]

HOURS COMPLIANCE: 23

HOURS NON COMPLIANCE: 1

-South Scrubber for 20 min. Reason Bleed Valve problem

[illegible]

A.B. Brown #1	TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O_2	PPM SO_2	Hourly Av LBS/MBTU	3 HR. Ave LBS/MBTU	°C TEMP	GROSS M.W.	
	1 A.M.	0	100	64	8.1	286	.86	.57	170	~~110~~	
12MD-8AM	2 A.M.	0	100	64	7.7	214	.63	.67	155	132	
	3 A.M.	0	100	64	7.8	154	.45	.64	146	131	
SHIFT	4 A.M.	0	100	64	7.7	122	.36	.47	145	146	
Baker	5 A.M.	3.7	100	64	8.0	274	.82	.54	170	~~100~~	
	6 A.M.	3.8	100	64	8.7	178	.57	.58	148	112	
	7 A.M.	4.0	100	64	6.6	211	.56	.65	154	162	
	8 A.M.	4.0	100	64	5.5	165.8	.41	.51	149.7	204	
	9 A.M.	6.2	100	64	4.4	151.1	.36	.44	152.	210	
8AM-4PM.	10 A.M.	4.9	1	64	4.9	199.4	.46	.40	157.3	216	
	11 A.M.	4.9	6.1	64	5.0	120	.28	.36	167.4	216	
	12 Noon	4.6	6.1	64	5.4	143.9	.34	.36	152.9	216	
Ofield	1 P.M.	4.9	1	64	4.2	79.3	.19	.21	142.7	216	
	2 P.M.	5.0	6	64	4.0	166.8	.36	.29	149.8	212	
	3 P.M.	5.2	100	64	4.2	484.2	1.10	.51	212.1	255	X
	4 P.M.	5.0	30+	64	3.5	570	1.23	.86	243	253	X
	5 P.M.	4.5	30+	64	4.1	520	1.27	1.16	254	251	X
	6 P.M.	4.2	30+	64	4.1	520	1.23	1.24	244	252	X
	7 P.M.	4.4	30+	64	4.2	520	1.25	1.24	225	251	X
	8 P.M.	4.4	30+	63	4.1	500	1.21	1.22	227	253	X
	9 P.M.	4.2	30+	63	4.2	490	1.24	1.23	277	250	X
Eldridge	10 P.M.	4.0	30+	64	4.8	500	1.24	1.23	224	205	X
	11 P.M.	4.0	30+	64	4.4	420	1.14	1.25	196	115	X
	12 MN.	3.5	100	64	8	286	.86	107	165	113	X

225

		AVAILABLE	NOT AVAILABLE	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	M.M.
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	MM
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	MM
RECIRC. PUMP	W			
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	MM
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	MM
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	MM
	530	✓		

DATE: AUG 3 1981

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0
8-4 0
4-12 0

Opacity compliance 24 HRS

PLANT MANAGER: [illegible]

HOURS COMPLIANCE: 12

HOURS NON COMPLIANCE: 12

TRUCK/TROUBLES

PNT 510 ON 12:00 NOON DUE TO TRUCK PROBLEMS
WENT OUT OF COMPLIANCE AT 1:30 pm PER TOM DUSTIN
DUE TO HIGH AMPS ON THICKENER RAKE.

125

REPORT
H.B. BROWN #1

	TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O2	PPM SO2	HOURLY # LBS/MBTU	3 HR. AVG LBS/MBTU	P ICK	TEMP. GROSS MW.	
12 MN - 8 A.M.	1 A.M.	4	100	6.4	8.3	281	0.84	0.94	161	111	
	2 A.M.	4	100	6.4	8.6	192	.60	.76	149	110	
SHIFT	3 A.M.	3.9	100	6.2	8.4	147	.47	.63	145	110	
	4 A.M.	3.9	16+	6.3	8.3	135	.42	.49	145	110	
	5 A.M.	4	2.8	6.2	8.2	126	.38	.42	144	110	
	6 A.M.	4	.5	6.2	8.4	135	.41	.40	146	110	
	7 A.M.	4	0	6.2	8.4	160	.49	.47	148	111	
	8 A.M.	4.2	0	6.2	6.5	250	.54	.47	152.2	125	
8 AM - 4 P.M.	9 A.M.	4.2	0	6.2	6.0	260	.52	.51	152.6	135	
	10 A.M.	4.2	0	6.4	5.4	140	.44	.50	151.7	145	
	11 A.M.	4.5	0	6.4	4.5	250	.35	.43	154	233	
	12 NOON	4.5	0.5	6.3	4.8	230	.53	.44	161	257	
	1 P.M.	4.5	0.2	6.3	4.9	200	.46	.45	151	252	
	2 P.M.	4.5	0.5	6.4	4.5	140	.32	.37	206	255	Flow steam pr.
	3 P.M.	4.7	100+	6.4	4.7	80	.22	.26	195	268	
	4 P.M.	4.4	30+	6.4	3.5	590	.65	.73	160	262	
	5 P.M.	4.2	30+	6.4	3.1	620	1.43	.96	274	262	
	6 P.M.	4.6	30+	6.4	3.3	750	1.58	1.21	289	258	
	7 P.M.	4.2	30+	6.3	3.3	750	1.61	1.53	281	258	
	8 P.M.	4.2	30+	6.2	3.4	740	1.64	1.61	281	260	
	9 P.M.	4.4	30+	6.4	3.9	500	1.54	1.59	265	262	
	10 P.M.	4.2	30+	6.4	4.5	495	1.31	1.49	230	256	
	11 P.M.	3.8	30+	6.4	9.1	195	.70	1.18	168	120	
	12 MN.	3.5	100+	6.4	9.3	158	.51	.83	148	110	

Line system pH

AUG 14 1981

DATE:

		AVAILABLE	NOT AVAIL.	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	M M
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	M M
	530	✓		
NORTH SCRUBBER	E	—		
RECIRC. PUMP	W	—		
SOUTH SCRUBBER	E		—	M. M.
RECIRC. PUMP	W	—		
SLAKERS	601	—		
	602	—		
	603	—		
FILTERS	510	—		
	520		—	M. M.
	530	—		

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0
8-4 0
4-12 1

1:30 PM Till 2:20 PM mod dampers Shut Due To Lime PH Problems.

PLANT MANAGER:

HOURS COMPLIANCE: 13

HOURS NON COMPLIANCE: 11 (see notations above)

REPORT

A.B. Brown #1

	TIME	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack % O_2	PPM SO_2	Hourly Av	LBS/MBTU 3 HR. AVG	LBS/MBT. R. CK	TEMP.	GROSS M.W.
12MD-8A.M. SHIFT	1 A.M.	3.5	100	64	9	150	.49	.56	146	116
	2 A.M.	3.6	100	64	8.5	133	.42	.47	144	110
	3 A.M.	3.7	100	62	8.3	128	.39	.43	143	110
	4 A.M.	4	100	62	8.1	143	.43	.40	144	110
	5 A.M.	4.2	100	62	8.1	151	.45	.42	144	110
	6 A.M.	4	100	62	8	140	.42	.43	143	110
	7 A.M.	4.2	3.5	62	7.9	156	.46	.44	146	110
	8 A.M.	4.8	0	62	6.8	160	.49	.45	147	112
8A.M.-4P.M.	9 A.M.	4.8	0	62	6.6	550	1.14	.69	208	~~113~~
	10 A.M.	4.3	0	63	7.4	290	.90	.84	167	~~110~~
	11 A.M.	4.2	0	62	7.5	185	.61	.88	151	110
	12 Noon	4.2	0	63	7.6	140	.43	.64	143	111
	1 P.M.	4.2	0	63	7.4	140	.42	.48	145	111
	2 P.M.	4.2	0	63	7.1	210	.48	.44	151	110
	3 P.M.	4.1	0	64	7.8	240	.71	.53	163	~~110~~
	4 P.M.	4.0	0	64	8.1	140	.54	.57	145	109
	5 P.M.	4.0	0	64	8.2	120	.42	.55	145	110
	6 P.M.	4.0	0	64	8.3	120	.36	.44	150	108
	7 P.M.	4.0	0	63	8.3	90	.33	.37	150	108
	8 P.M.	4.0	0	64	8.4	90	.31	.33	150	109
	9 P.M.	3.9	0	64	8.4	97	.29	.30	150	108
	10 P.M.	4.4	0	64	8.3	90	.26	.28	145	110
	11 P.M.	4.2	0	64	8.2	75	.25	.26	150	105
	12 MN.	4.2	—	64	8.3	75	.23	.24	142	108

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 ____

8-4 ____

4-12 0

PLANT MANAGER: K. A. Allen

HOURS COMPLIANCE: 24

HOURS NON COMPLIANCE: 0

227

DATE: AU 5 1981

		AVAILABLE	NOT AVAIL	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	M. M
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	M M
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	M M.
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	M. M
	530	✓		

127

REVISIT

R.B. EXHAUST #1

TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O_2	PPM SO_2	HOURLY # LBS/MBTU	3 HR. AVG LBS/MBTU	S.T. TEMP.	GROSS M.W.
1 A.M.	4.2	100	64	8.3	75	.23	.23	142	108
2 A.M.	4.2	100	64	8.4	91	.28	.24	145	107
3 A.M.	4.2	100	63	8.3	114	.35	.28	147	110
4 A.M.	4.2	100	63	8.3	133	.40	.34	147	112
5 A.M.	4.2	100	63	8.4	144	.43	.39	147	112
6 A.M.	4.2	100	63	8.3	148	.45	.42	146	113
7 A.M.	4.2	100	63	8.3	154	.47	.44	146	112
8 A.M.	4.2	0	64	8.0	166	.49	.46	148	111
9 A.M.	4.2	.3	64	7.9	205	.61	.52	153	111
10 A.M.	4.2	.3	64	8.2	191	.58	.56	146	115
11 A.M.	4.0	.2	64	8.1	171	.52	.57	146	111
12 Noon	4.2	.4	64	8.1	160	.47	.52	146	111
1 P.M.	4.2	.4	64	8.2	171	.52	.50	146	110
2 P.M.	4.2	.3	64	8.2	165	.50	.50	146	111
3 P.M.	4.0	.2	64	8.1	168	.51	.51	146	111
4 P.M.	4.1	.0	64	8.5	200	.47	.49	146	111
5 P.M.	4.2	.0	64	8.6	225	.48	.48	147	111
6 P.M.	4.0	.0	64	8.6	220	.48	.47	147	109
7 P.M.	4.1	.0	64	8.6	200	.48	.47	147	111
8 P.M.	4.1	.0	64	8.4	230	.50	.48	148	113
9 P.M.	4.2	.0	64	8.5	210	.54	.50	148	113
10 P.M.	4.1	.0	64	8.6	210	.54	.52	147	114
11 P.M.	4.2	.0	64	8.6	200	.54	.53	147	113
12 MN.	4	0	64	8.6	167	.52	.54	146	112

12md-8AM SHIFT 2(L)

8AM-4PM.

4-12 B.J. [illegible]

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0
8-4 0
4-12 0

HOURS COMPLIANCE: 24
HOURS NON COMPLIANCE: 0

PLANT MANAGER: [signature]

228

DATE: AUG 16 1981

		AVAILABLE	NOT AVAIL.	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	M.M
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	M.M
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	M. M.
RECIRC. PUMP	W	—		
SLAKERS	601	—		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	M. M.
	530	✓		

128

EMISSION REPORT

A.B. BROWN #1

DATE: ; 17 1981

	TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O2	PPM SO2	HOURLY AV. LBS/MBTU	3 HR. AVG LBS/MBTU	C. CK	TEMP	GROSS M.W.
12MD-8AM SHIFT	1 A.M.	4	1.0	64	8.6	165	.51	.52		144	110
	2 A.M.	4.5	.5	64	8.6	169	.52	.51		145	110
	3 A.M.	4.5	1.0	63	8.5	198	.61	.54		148	112
	4 A.M.	4.7	1.0	63	8.4	206	.63	.58		149	113
	5 A.M.	4.5	1.0	63	8.4	197	.60	.61		146	113
	6 A.M.	4.5	1.0	63	8.4	191	.58	.60		144	112
	7 A.M.	4.5	1.0	63	8.3	226	.69	.62		148	113
	8 A.M.	4.8	1.0	64	8.0	237	.71	.66		149	112
8AM-4P.M.	9 A.M.	4.8	1.0	64	8.1	246	.74	.71		151	117
	10 A.M.	4.5	0	64	8.1	208	.63	.69		145	111
	11 A.M.	4.8	0	64	8.1	203	.61	.66		145	112
	12 Noon	4.5	0	64	8.1	194	.59	.61		146	113
	1 P.M.	4.5	0	64	8.2	187	.57	.59		146	113
	2 P.M.	4.5	0	64	8.1	173	.53	.56		146	112
	3 P.M.	4.4	0	64	8.1	177	.54	.54		146	110
	4 P.M.	4.4	0	65	8.4	220	.53	.52		147	110
	5 P.M.	4.3	0	64	8.4	210	.54	.53		147	111
	6 P.M.	4.1	0	64	8.3	210	.54	.53		147	112
	7 P.M.	4.0	0	64	8.3	230	.53	.53		147	111
	8 P.M.	4.5	0	63	7.9	120	.37	.47		141	150
	9 P.M.	4.8	0	64	4.8	130	.22	.37		148	222
	10 P.M.	4.6	0	64	5.0	150	.27	.26		144	210
	11 P.M.	4.2	0	64	8.3	225	.34	.27		150	124
	12 MN.	4.2	.7	64	8.4	160	.49	.36		144	112

229

		AVAILABLE	NOT AVAIL	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W		✓	M.M
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W		✓	M.M
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	M M
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W		✓	M.M.
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W		✓	M M
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	M.M
	530	✓		

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

HOURS COMPLIANCE: 24

HOURS NON COMPLIANCE: 0

PLANT MANAGER:

EMISSION REPORT

A.B. BROWN #1

DATE JUL 1 1981 A. 18 1981

TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O2	PPM SO2	HOURLY AVG LBS/MBTU	3 HR. AVG. LBS/MBTU	S.F. TEMP.	GROSS M.W.
1 A.M.	4.2	.7	6.4	8.6	131	.41	.41	140	113
2 A.M.	4.2	.9	6.4	8.6	169	.52	.46	148	112
3 A.M.	4.3	.8	6.3	8.5	216	.66	.52	150	113
4 A.M.	4.3	.8	6.4	8.6	237	.73	.63	151	115
5 A.M.	4.5	1.0	6.4	6.7	250	.76	.71	151	160
6 A.M.	4.8	.5	6.4	6.1	333	.84	.77	165	190
7 A.M.	4.5	.5	6.4	6.8	124	.33	.64	137	167
8 A.M.	4.5	.5	6.4	6.2	148	.39	.51	141	161
9 A.M.	4.8	1.0	6.4	6.1	195	.50	.40	145	175
10 A.M.	5.0	.5	6.4	5.2	264	.70	.53	157	192
11 A.M.	5.0	1.0	6.4	3.9	279	.63	.60	154	250
12 Noon	5.0	.5	6.7	4.5	214	.50	.60	147	245
1 P.M.	5.2	0	6.4	4.5	237	.55	.55	155	237
2 P.M.	4.8	0	6.4	4.8	225	.54	.52	152	245
3 P.M.	4.8	0	6.4	5.0	167	.40	.49	146	217
4 P.M.	4.9	0	6.4	5.3	200	.31	.41	144	221
5 P.M.	4.9	0	6.5	5.5	230	.72	.47	200	229
6 P.M.	4.6	0	6.5	5.5	240	.42	.51	150	218
7 P.M.	4.5	0	6.4	5.6	220	.48	.57	150	217
8 P.M.	4.8	0	6.4	5.4	225	.44	.47	151	222
9 P.M.	4.3	0	6.3	5.4	210	.44	.45	152	222
10 P.M.	4.5	0	6.3	5.5	200	.40	.42	150	220
11 P.M.	4.2	0	6.4	7.1	208	.44	.42	148	162
12 MN.	4.2	0	6.4	7.2	180	.50	.44	151	163

12 Mid - 8 A.M. SHIFT — B. Liggett

8 A.M. - 4 P.M. — [illegible]

4 P.M. - 12 Mid. — [illegible]

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

(Air feed pump affected on 1 hr Boiler Trip on pilot temp.)

PLANT MANAGER: [illegible]

HOURS COMPLIANCE: 22

HOURS NON COMPLIANCE: 2

R30

		AVAILABLE	OUT OF SERVICE	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W		✓	
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W		✓	
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W		✓	M M.
SOUTH SCRUBBER	E		✓	M M
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	M M.
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W		✓	M. M.
SOUTH SCRUBBER	E		✓	M. M.
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	M M
	530	✓		

130

EMISSION REPORT.

H.B. Brown #1

DATE AUG 19 1981

	TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O_2	PPM SO_2	HOURLY AVG. LBS/MBTU	3 HR. AVG. LBS/MBTU	ST. TEMP.	GROSS M.W.
12MN-8AM	1 A.M.	4.7	0	64	7.2	191	.53	.48	150	162
	2 A.M.	4.5	0	64	7.3	218	.60	.54	154	160
SHIFT	3 A.M.	4.2	0	63	8.1	155	.45	.52	143	130
	4 A.M.	4.7	0	64	8.8	130	.40	.49	140	117	
GG.	5 A.M.	4.3	0	64	8.5	171	.53	.46	147	112
	6 A.M.	4.1	0	64	8.5	193	.59	.50	146	112
	7 A.M.	4.2	0	64	7.6	207	.67	.57	148	130
	8 A.M.	4.2	0	64	7.1	240	.72	.64	156	133
8AM-4PM.	9 A.M.	4.2	0	64	7.2	245	.69	.67	153	150
	10 A.M.	4.2	.9	64	7.4	153	.44	.61	141	144
	11 A.M.	4.6	1.2	64	6.5	176	.47	.53	148	174
	12 Noon	4.8	.4	64	6.7	184	.50	.46	149	174
	1 P.M.	4.9	.5	64	6.5	176	.47	.47	149	181
NOON	2 P.M.	5.1	1.2	64	4.4	252	.58	.51	167	245
	3 P.M.	5.0	.8	64	3.9	341	.76	.60	179	254
	4 P.M.	5.0	0.8	64	3.6	516	1.13	.82	212	260
	5 P.M.	5.0	0.8	64	3.4	582	1.26	1.04	210	258
4	6 P.M.	5.2	0.8	64	3.3	608	1.31	1.23	211	252
	7 P.M.	4.8	0.8	64	3.4	614	1.33	1.29	211	256
	8 P.M.	4.8	OVER RANGE	64	3.3	586	1.26	1.30	211	264
	9 P.M.	4.8	"	64	4.0	297	.67	1.08	162	255
ENGINE	10 P.M.	4.9	"	64	4.0	244	.55	.82	158	255
	11 P.M.	4.2	"	64	5.1	184	.46	.55	149	227
	12 MN.	4.2	—	64	7.7	84	.23	.41	141	145

231

		AVAILABLE	NOT AVAILABLE	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W		✓	
SOUTH SCRUBBER	E		✓	
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W		✓	MM
SOUTH SCRUBBER	E		✓	
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W		✓	MM
SOUTH SCRUBBER	E		✓	
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

PLANT MANAGER:

HOURS COMPLIANCE: 14

HOURS NON COMPLIANCE: 10

- Due to truck problem (which caused lack of filter cake)
- " " rake fatigue problem
- " " solenoid and timer settings)

131

REPORT

H. B. BROWN #1

TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK OPACITY	% O_2	PPM SO_2	HOURLY LBS/MBTU	3 HR. AV. LBS/MBTU	STACK LBS/HR	NET GROSS M.W.	
1 A.M.	4.2	10.0+	6.4	7.9	8.8	.26	.31	141	140		
2 A.M.	4.3	10.0	6.4	8.5	15.0	.44	.30	150	115		
3 A.M.	4.5	10.0	6.3	8.6	17.1	.53	.40	151	112		
4 A.M.	4.5	10.0	6.3	8.4	19.1	.59	.51	154	117		
5 A.M.	4.5	10.0	6.2	8.4	22.1	.67	.57	156	120		
6 A.M.	4.5	10.0	6.3	8.5	20.6	.64	.63	152	120		
7 A.M.	4.7	17.5	6.3	7.5	22.5	.65	.65	150	155		
8 A.M.	4.8	2.4	6.4	7.2	14.9	.42	.57	142	155		
9 A.M.	4.8	.9	6.4	7.1	12.2	.34	.47	142	188		
10 A.M.	5.2	1.0	6.4	5.7	13.8	.35	.37	147	201		
11 A.M.	5.0	1.0	6.4	3.6	20.5	.63	.43	170	249		
12 Noon	4.5	.8	6.4	4.4	27.7	.64	.53	166	259		
1 P.M.	3.0	5.0	6.4	4.5	27.0	.63	.63	164	255		
2 P.M.	5.5	5.5	6.4	4.5	26.1	.61	.62	163	261		
3 P.M.	5.2	1.4	6.4	4.9	14.7	.35	.52	147	252		
4 P.M.	5.2	1.6	6.4	5.3	9.7	.22	.39	143	243		
5 P.M.	5.2	.8	6.4	5.7	5.8	.15	.23	142	224		*
6 P.M.	6.2	.8	6.4	4.4	5.0	.12	.16	143	248		
7 P.M.	5.2	.9	6.4	4.1	5.3	.12	.15	145	265		
8 P.M.	6.2	.8	6.4	4.0	4.3	.10	.11	144	260		
9 P.M.	5.2	1.8	6.4	3.7	4.2	.10	.10	143	257		
10 P.M.	4.9	1.4	6.4	4.0	3.4	.08	.09	143	273		*
11 P.M.	4.5	12.0	6.4	6.6	2.4	.08	.08	140	171		
12 MN.	4.2	.8	6.4	9.4	5.0	—	—	140	110		

12 MN - 8 A.M. SHIFT — 9 9s -

8 AM - 4 P.M. — D Heid

English

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

PLANT MANAGER:

HOURS COMPLIANCE:

HOURS NON COMPLIANCE:

DATE: 20 Aug 81

REMARKS

			AVAILABLE	NOT AVAIL.	
NORTH SCRUBBER	E		✓		
RECIRC. PUMP	W			✓	
SOUTH SCRUBBER	E			✓	
RECIRC. PUMP	W		✓		
SLAKERS		601	✓		
		602	✓		
		603	✓		
FILTERS		510	✓		
		520		✓	
		530	✓		
NORTH SCRUBBER	E		✓		
RECIRC. PUMP	W			✓	mm
SOUTH SCRUBBER	E			✓	mm
RECIRC. PUMP	W		✓		
SLAKERS		601	✓		
		602	✓		
		603	✓		
FILTERS		510	✓		
		520		✓	mm
		530	✓		
NORTH SCRUBBER	E		✓		
RECIRC. PUMP	W			✓	mm
SOUTH SCRUBBER	E			✓	mm
RECIRC. PUMP	W		✓		
SLAKERS		601	✓		
		602	✓		
		603	✓		
FILTERS		510	✓		
		520		✓	mm
		530	✓		

REPORT

J. B. Brown #1

	TIME	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack % O_2	PPM SO_2	Hourly #	Lbs/MBT 3 Hr. Av.	Lbs/MB Stack	# AP	Gross M.W.
12 Md-8 A.M.	1 A.M.	4.0	1.0	64	9.4	55	.02	.07	134	111	
	2 A.M.	4.0	.0	64	9.2	60	.03	.02	135	111	
SHIFT	3 A.M.	4.2	.2	63	8.9	60	.07	.03	141	111	
	4 A.M.	4.1	.2	64	9.0	100	.15	.08	143	112	
D. Heil	5 A.M.	4.2	.2	63	8.9	110	.27	.16	142	111	
	6 A.M.	4.1	.2	63	9.0	155	.37	.26	148	111	
	7 A.M.	4.1	.6	63	8.9	170	.47	.36	148	113	
	8 A.M.	4.2	.2	64	8.7	169	.54	.45	148	110	
8 A.M.-4 P.M.	9 A.M.	4.8	.2	64	8.8	149	.48	.49	143	112	
	10 A.M.	4.8	1.4	64	7.8	109	.32	.44	141	138	
	11 A.M.	4.8	1.4	64	4.2	152	.35	.38	147	248	
	12 Noon	4.8	1.4	64	4.7	115	.27	.31	144	259	
	1 P.M.	4.5	1.2	64	5.3	98	.24	.28	142	238	
Nolan	2 P.M.	4.5	.6	64	5.3	83	.20	.23	142	241	
	3 P.M.	4.5	.4	64	5.3	64	.16	.20	142	238	
	4 P.M.	4.2	OVER RANGE	64	5.3	55	.14	.16	143	240	
	5 P.M.	4.9	"	64	5.0	66	.16	.15	145	247	
	6 P.M.	4.9	"	64	4.4	79	.19	.16	148	265	
	7 P.M.	4.9	"	64	4.2	93	.22	.18	150	252	
	8 P.M.	4.9	"	64	4.4	87	.21	.20	147	266	
Engvall	9 P.M.	4.9	"	64	4.5	85	.20	.20	148	265	
	10 P.M.	4.2	"	64	5.8	67	.17	.19	143	235	
	11 P.M.	4.2	"	64	6.0	27	.09	.15	138	252	
	12 MN.	4.1	"	63	9.4	95	—	—	138	107	

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

PLANT MANAGER:

HOURS COMPLIANCE:

HOURS NON COMPLIANCE:

MAIL AUG 24 1981

		Available	Not Avail.	Remarks
North Scrubber	E	✓		
Recirc. Pump	W		✓	MM
South Scrubber	E		✓	MM
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520		✓	MM
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W		✓	MM
South Scrubber	E		✓	MM
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520		✓	MM
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	MM
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520		✓	MM
	530	✓		

REPORT

H.B. Brown #1

DATE AUG-22-1981

	TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O2	PPM SO2	HOURLY # LBS/MBTU	3 HR. AVG LBS/MBTU	STACK T	IP GROSS M.W.
12 MD - 8 A.M.	1 A.M.	4.0	—	64	8.6	95	.18	.10	144	111
	2 A.M.	4.2	—	64	8.7	140	.24	.15	146	140
SHIFT C Hd	3 A.M.	4.2	—	64	9.3	120	.31	.24	146	112
	4 A.M.	4.1	—	64	9.4	200	.48	.34	156	111
	5 A.M.	4.2	1.1	64	9.1	210	.64	.47	156	112
	6 A.M.	4.5	1.2	64	9.3	250	.71	.60	157	112
	7 A.M.	4.6	1.3	64	9.1	270	.80	.71	160	113
	8 A.M.	4.4	1.8	64	9.2	280	.85	.78	160	111
8 AM - 4 P.M.	9 A.M.	4.4	1.2	64	9.4	240	.72	.79	150	112
	10 A.M.	4.5	1.0	64	9.6	340	.60	.72	150	112
	11 A.M.	4.6	1.0	64	9.5	100	.70	.57	145	110
	12 Noon	4.8	NF	64	7.8	200	.44	.47	155	122
	1 P.M.	4.8	2.0	64	6.4	170	.56	.46	160	172
Nolm	2 P.M.	4.5	2.0	64	6.5	80	.27	.42	150	192
	3 P.M.	4.5	NF	64	6.0	70	.21	.35	140	192
	4 P.M.	4.8	NA	64	6.1	62	.16	.22	142	192
	5 P.M.	4.9	NA	64	6.7	57	.15	.17	144	200
	6 P.M.	5.0	NA	64	5.0	65	.16	.15	147	226
	7 P.M.	4.5	NA	64	5.3	87	.22	.17	149	216
	8 P.M.	4.5	NA	64	6.3	55	.15	.17	143	192
	9 P.M.	4.3	NA	64	6.6	33	.10	.15	141	173
Eng. Sh	10 PM	4.0	NA	64	8.2	23	.08	.10	139	127
	11 AM	4.2	NA	64	8.7	15	.06	.07	137	110
	12 MN.	4.0	—	64	8.8	65	—	—	145	110

		AVAILABLE	NOT AVAIL.	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	M M
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	M M
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	M M
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	
	530	✓		

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

PLANT MANAGER:

HOURS COMPLIANCE:

HOURS NON COMPLIANCE:

REPORT

A.B. Brown #1

		1 INE	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack % O2	PPM SO2	Hourly Lbs/MBTU	3 Hr. Lbs/MBTU	Stack MW	Gross MW
12 MN - 8 A.M.	1 A.M.	4.1	—	64	8.6	80	.12	.07	145	113
	2 A.M.	4.1	—	64	8.7	150	.30	.15	151	114
	3 A.M.	4.1	—	64	8.7	190	.46	.29	158	111
	4 A.M.	4.2	—	64	8.7	240	.59	.45	160	112
SHIFT	5 A.M.	4.2	3.2	63	8.7	240	.66	.57	160	113
	6 A.M.	4.2	3.2	63	8.8	245	.67	.64	158	111
	7 A.M.	4.5	2.8	64	8.6	248	.70	.67	158	113
	8 A.M.	4.3	2.5	64	8.6	228	.70	.69	160	113
	9 A.M.	4.5	2.5	64	8.7	172	.54	.64	148	113
8 A.M. - 4 P.M.	10 A.M.	4.3	2.5	64	8.8	147	.46	.56	146	112
	11 A.M.	4.3	2.8	64	7.8	140	.44	.48	146	137
	12 Noon	4.7	3.0	64	6.9	154	.42	.43	149	170
	1 P.M.	4.5	3.0	63	7.0	87	.24	.36	141	167
	2 P.M.	4.2	—	63	6.3	81	.23	.29	142	180
	3 P.M.	4.3	—	63	6.5	86	.23	.23	147	190
	4 P.M.	4.4	NA	64	6.0	95	.25	.23	149	211
	5 P.M.	4.9	NA	64	5.5	55	.14	.20	144	216
4 P.M. - 12 MN.	6 P.M.	4.9	NA	64	5.2	49	.12	.16	145	237
	7 P.M.	4.8	NA	64	4.1	61	.14	.13	149	257
	8 P.M.	4.5	NA	64	4.9	57	.14	.13	147	233
	9 P.M.	4.2	NA	64	5.8	37	.12	.10	145	206
1 E	10 P.M.	4.9	NA	64	5.8	39	.10	.11	147	197
	11 P.M.	4.9	NA	64	7.1	28	.08	.09	143	159
	12 MN.	4.5	—	64	7.3	70	—	—	145	152

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

HOURS COMPLIANCE:

HOURS NON COMPLIANCE:

PLANT MANAGER:

		Availa	Not A	
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	mn
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	mn
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓	✓	
	520			
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	mn
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	
	530	✓		

23 Aug 81

REI

Down=1	Time	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack Opacity	% O_2	PPM	SO_2 Hourly Av	LBS/MBTU 3 Hr. Avg	LBS/HR.	Stack Temp	Gross M.W.
	1 A.M.	4.5	—	64	7.3	75	.06	.06	142	150		
12 Mid - 8 A.M.	2 A.M.	4.5	—	64	7.4	80	.10	.07	145	146		
	3 A.M.	4.3	—	64	7.3	90	.15	.10	147	150		
SHIFT	4 A.M.	4.5	—	64	7.3	150	.28	.16	152	150		
	5 A.M.	4.4	—	64	7.0	155	.33	.24	154	152		
R. Lingafelt	6 A.M.	4.5	—	64	7.1	200	.40	.32	154	151		
	7 A.M.	4.8	4.1	64	5.1	170	.46	.39	154	200		
	8 A.M.	4.8	4.3	64	5.0	153	.37	.40	154	220		
	9 A.M.	5.0	4.3	64	4.6	152	.37	.39	153	250		
8 A.M. - 4 P.M.	10 A.M.	5.0	4.3	64	4.4	81	.19	.30	143	263		
	11 A.M.	5.0	—	65	4.7	83	.19	.25	148	260		
	12 Noon	5.0	4.5	64	4.7	85	.20	.19	148	260		
	1 P.M.	5.0	9.5	63	4.7	79	.19	.19	148	260		
	2 P.M.	4.5	9.5	64	4.8	76	.18	.18	148	255		
	3 P.M.	4.7	—	64	4.7	73	.17	.18	149	258		
	4 P.M.	4.9	10	64	4.6	69	.17	.17	150	263		
	5 P.M.	4.9	4.2	62	4.8	58	.14	.16	148	259		
4 P.M. - 12 MN.	6 P.M.	4.9	NA	62	4.8	47	.12	.14	147	262		
	7 P.M.	5.0	NA	62	4.7	42	.11	.12	148	258		
	8 P.M.	4.9	NA	58	4.6	44	.11	.11	150	266		
	9 P.M.	4.9	NA	58	4.5	42	.10	.10	149	259		
	10 P.M.	4.9	NA	58	4.4	40	.10	.10	148	263		
	11 P.M.	4.8	NA	68	5.2	30	.08	.09	147	332		
	12 MN.	4.1	—	50	7.6	60	—	—	150	153		

377

DATE: AUG 24 1981

		Available	Not Avail.	Remarks
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	M.M.
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520		✓	M.M.
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	MM
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520		✓	MM
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	MM
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520		✓	MM

Hours Surge Tank Overflowed Each Shift

12-8 0

8-4 0

4-12 0

AUG 24 1981

Hours Compliance: 24

Hours Non Compliance: 0

Plant Manager:

REPORT

A.B. Brown #1

TIME	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack Opacity	Stack % O2	SO2 PPM	Hourly Av.	LBS/MBTU 3 Hr. Ave.	LBS/MBT. Stack	T Gross	M.W.
1 A.M.	4.1	—	36	7.0	95	.13	.08	152	153		
2 A.M.	4.0	—	36	7.2	150	.29	.15	157	150		
3 A.M.	4.1	—	36	7.0	160	.38	.26	152	150		
4 A.M.	4.2	—	37	6.4	250	.46	.37	123	170		
5 A.M.	4.3	—	31	6.3	250	.63	.48	170	176		
6 A.M.	4.7	—	40	6.8	240	.58	.55	161	175		
7 A.M.	4.6	—	44	6.8	240	.38	.53	149	173		
8 A.M.	4.7	—	36	5.3	133	.34	.43	151	203		
9 A.M.	5	10.8	58	5.0	174	.42	.37	157	240		
10 A.M.	5	5.5	50	4.8	95	.23	.32	145	255		
11 A.M.	5	5.5	54	4.8	93	.23	.28	148	255		
12 Noon	5	5.7	52	4.8	90	.22	.22	150	257		
1 P.M.	5	—	54	4.9	86	.21	.21	150	258		
2 P.M.	4.5	—	62	5.2	58	.14	.18	146	250		
3 P.M.	4.5	—	64	5.1	40	.10	.14	145	250		
4 P.M.	4.8	—	63	4.7	46	.11	.11	151	259		
5 P.M.	4.2	—	69	5.3	47	.12	.10	147	230		
6 P.M.	4.2	—	70	6.8	18	.105	.09	144	179		
7 P.M.	4.2	—	70	7.3	9.5	.03	.06	143	155		
8 P.M.	4.2	—	70	6.7	5.0	.02	.03	142	176		
9 P.M.	4.2	—	70	6.9	6.9	.03	.02	142	170		
10 P.M.	4.5	—	70	8.0	6.1	.02	.02	140	129		
11 P.M.	4.8	—	70	8.6	3.4	.02	.02	139	111		
12 MN.	4.2	—	50	8.7	6.0	—	—	135	116		

12MN-8A.M. SHIFT — B. Light

8A.M.-4P.M. — JP

4P.M.-12MN. — OE

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

PLANT MANAGER:

HOURS COMPLIANCE: 24

HOURS NON COMPLIANCE: 0

DATE: AUG 25 1981.

			Available	Not Avail.	Remarks
North Scrubber	E		✓		
Recirc. Pump	W		✓		
South Scrubber	E			✓	M.M.
Recirc. Pump	W		✓		
Slakers		601	✓		
		602	✓		
		603	✓		
Filters		510	✓		
		520		✓	M.M.
		530	✓		
North Scrubber	E		✓		
Recirc. Pump	W		✓		
South Scrubber	E			✓	
Recirc. Pump	W		✓		
Slakers		601	✓		
		602	✓		
		603	✓		
Filters		510	✓		
		520		✓	
		530	✓		
North Scrubber	E		✓		
Recirc. Pump	W		✓		
South Scrubber	E			✓	M.M.
Recirc. Pump	W		✓		
Slakers		601	✓		
		602	✓		
		603	✓		
Filters		510	✓		
		520		✓	M.M.
		530	✓		

137

REPORT
J.B. Brown #1

TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O_2	PPM SO	HOURLY LBS/MB	3 HR. A LBS/MB	STAC	NF GROS M.W.	
1 A.M.	4.2	—	40	3.4	90	.07	.03	146	114	
2 A.M.	4.2	—	40	3.5	100	.17	.08	149	112	
3 A.M.	4.2	—	36	3.5	110	.24	.15	151	112	
4 A.M.	4.2	—	32	3.4	150	.32	.24	152	112	
5 A.M.	4.1	5.2	32	3.5	180	.38	.31	150	113	
6 A.M.	4.2	5.2	34	3.5	160	.41	.37	149	111	
7 A.M.	4.2	5.4	36	3.4	210	.41	.40	148	111	
8 A.M.	4.5	5.3	37	3.4	143	.44	.42	149	112	
9 A.M.	4.5	5.5	26	5.9	191	.55	.46	175	110	*
10 A.M.	4.7	5.7	30	6.1	528	1.33	.77	247	111	*
11 A.M.	4.5	5.6	31	6.4	578	1.49	1.12	248	112	*
12 Noon	4.5	5.6	33	5.6	600	1.47	1.43	254	133	*
1 P.M.	5	5.5	33	4	653	1.53	1.50	265	200	*
2 P.M.					Poker				185	*
3 P.M.										
4 P.M.										
5 P.M.	4.2	4.8	64	0	695	1.26	1.27	275	199	
6 P.M.	4.2	4.8	64	0	571	1.03	1.18	232	197	
7 P.M.	4.3	4.8	64	0	443	.80	1.02	190	190	
8 P.M.	4.3	4.8	64	0	225	.41	.74	156	170	
9 P.M.	4.2	4.8	64	0	86	.16	.45	144	166	
10 P.M.	4.2	4.8	64	0	57	.10	.22	142	155	
11 P.M.	4.2	4.8	64	0.1	75	.14	.13	149	119	
12 Mid.	4.4	—	64	8.3	240	—	—	150	115	

12 Mid - 8 A.M. SHIFT — B. Liggett

8 A.M. - 4 P.M. — WCP

4 P.M. - 12 Mid. — Hoke

8/26/81

		AVAILABLE	NOT AVAIL	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	M.M.
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	M.M.
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	MM
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	MM
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	MM
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520		✓	MM
	530	✓		

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 ()
8-4 ()
4-12 ()

HOURS COMPLIANCE: 9
HOURS NON COMPLIANCE: 15

PLANT MANAGER:
Scrubber off line due to high chlor. out Reg pH
Scrubber off for Maint. Work on line
Back in service @ 5:30 P.M.

138

REPORT

B. Brown "1"

TIME	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack Opacity	% O_2	PPM SO_2	Hourly Avg LBS/MBTU	3 HR. Avg LBS/MBTU	Stack T	P. Gross M.W.
1 A.M.	4.4	—	63	8.7	8.7	210	.42	.30	156	112
2 A.M.	4.6	-	63	8.8	8.8	200	.32	.26	148	112
3 A.M.	4.5	-	63	8.7	8.7	190	.23	.23	147	112
4 A.M.	4.4	12.0	63	8.7	8.7	190	.28	.29	148	114
5 A.M.	4.8	12.0	62	8.7	8.7	185	.29	.28	148	113
6 A.M.	4.2	6.0	62	8.5	8.5	160	.26	.27	145	114
7 A.M.	4.3	6.0	63	8.5	8.5	155	.25	.26	145	113
8 A.M.	4.2	6.0	64	8.5	8.5	121	.22	.24	143	113
9 A.M.	4.5	6.0	64	8.5	8.5	114	.21	.22	143	113
10 A.M.	4.2	6.0	64	8.5	8.5	106	.20	.21	142	113
11 A.M.										
12 Noon	4.2	6.0	64	8.5	8.5	97	.18	.18	142	113
1 P.M.	4.0	6.0	63	8.5	8.5	97	.18	.18	143	112
2 P.M.	4.5	6.0	63	8.5	8.5	93	.18	.17	142	113
3 P.M.	4.5	6.0	63	8.5	8.5	95	.18	.17	142	112
4 P.M.	4.5	5.2	64	8.5	8.5	93	.17	.17	142	112
5 P.M.	4.8	5.0	64	8.5	8.5	96	.18	.17	142	116
6 P.M.	4.5	5.6	64	8.5	8.5	99	.18	.17	142	112
7 P.M.	4.8	6.0	64	8.5	8.5	98	.18	.18	142	111
8 P.M.	4.8	6.5	64	8.5	8.5	102	.19	.18	142	110
9 P.M.	4.8	6.2	64	8.5	8.5	104	.19	.18	142	112
10 PM.	4.5	6.2	64	7.6	7.6	206	.37	.25	170	114
11 AM	4.2	6.2	64	8.7	8.7	234	.43	.33	152	112
12 MN.	4.5	5.0	64	8.5	8.5	127	.24	.34	140	109

12 MN - 8 AM — Shift — B Liggett

8 AM - 4 PM.

4 PM - 12 MN. — J E

		Available	Not Available	Remarks
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	M.M.
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520		✓	M.M.
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	MM
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520		✓	MM
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	MM
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520		✓	MM
	530	✓		

DATE: AUG 27 1981

Hours Surge Tank Overflowed Each Shift

12-8 3 hrs

8-4 0

4-12 0

Plant Manager:

Hours Compliance: 7

Hours Non Compliance: 17

- 1 hr - fan bearing trouble
- 16 hrs - (by calculation) low oxygen.

AUG 27 1981

REPORT

J.B. Brown #1

DATE: AUG 20 1984

Time	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack Opacity	% O_2	PPM SO_2	Hourly A LBS/MBT.	3 HR. Av. LBS./MB.	Stack T	Gross M.W.	
1 A.M.	4.9	7.0	64	8.5	108	.20	.28	140	116		
2 A.M.	3.9	6.5	64	8.8	99	.19	.21	141	110		
3 A.M.	4.0	6.4	64	8.8	106	.20	.19	143	116		
4 A.M.	5.0	NA	64	8.9	109	.21	.19	142	110		
5 A.M.	4.8	NA	64	8.9	108	.21	.20	142	113		
6 A.M.	4.2	NA	64	8.8	102	.19	.20	140	113		
7 A.M.	2.3	NA	64	8.7	94	.18	.19	138	114		
8 A.M.	.5	—	63	8.9	93	.18	.18	139	113		
9 A.M.	.5	—	63	7.9	107	.20	.18	140	113		
10 A.M.	.5	—	63	7.8	107	.20	.18	138	112		
11 A.M.	.5	—	64	8	145	.27	.21	146	112		
12 Noon	1.5	—	64	7.2	220	.40	.28	156	113		
1 P.M.	1.5	—	63	6.8	159	.29	.31	147	122	*	
2 P.M.											
3 P.M.	5.0	—	68	6.7	124	.22	.25	145	122		
4 P.M.	5.0	5.0	42	6.6	127	.23	.23	145	121		
5 P.M.	4.4	5.0	32	7.6	139	.25	.23	155	119		
6 P.M.	4.2	4.8	28	7.3	133	.24	.24	147	121		
7 P.M.	4.0	3.2	14	7.3	166	.30	.26	151	117		
8 P.M.	4.5	3.2	14	8.2	138	.25	.26	144	114		
9 P.M.	4.8	3.2	17	7.6	164	.30	.28	150	116		
10 P.M.	4.8	3.2	17	7.6	305	.55	.36	190	117	MODS CLOSED	
11 P.M.	4.8	3.4	21	8.4	216	.40	.41	150	113		
12 MN.	6.0	10.0	23	8.2	176	.33	.42	145	120		

12 MN - 8 A.M.

SHIFT

JE

8 A.M. - 4 P.M.

4 P.M. - 12 MN.

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 3

8-4

4-12 0

PLANT MANAGER:

HOURS COMPLIANCE:

HOURS NON COMPLIANCE:

* South Half scrubber out service-Due to BLR. FD-Fan Trouble—

		Available	Not Avail.	Remarks
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	MM
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520		✓	MM
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520		✓	
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		MM
	603	✓		
Filters	510		✓	MM
	520		✓	MM
	530	✓		

EMISSION REPORT

G.B. Brown #1

DATE: AUG 29 1981 / AUG 30 1981

	TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O_2	PPM SO_2	HOURLY AVG	LBS/MBTU 3 HR. AVG.	LBS/MBTU STACK	STACK TE	GROSS M.W.	
12MN-8A.M. SHIFT JPE	1 A.M.	4.9	10.0	24	8.1	151	.28	.33	143	115		
	2 A.M.	5.0	36.0	26	8.2	143	.27	.29	144	114		
	3 A.M.	5.0	11.0	48	8.3	100	.19	.24	139	118		
	4 A.M.	5.2	10.9	50	8.4	87	.16	.20	138	112		
	5 A.M.	5.2	11.1	46	8.8	67	.13	.15	137	110		
	6 A.M.	5.5	10.8	48	8.9	54	.10	.12	136	106		
	7 A.M.	4.9	10.9	46	8.9	66	.13	.11	139	110		
	8 A.M.	4.4	10.4	27	9.6	98	.17	.13	144	107		
8AM-4PM.	9 A.M.	4.4	10.5	26	9.2	80	.19	.16	142	109		
	10 A.M.	4.3	10.4	26	9.4	90	.19	.18	141	106		
	11 A.M.	5.0	10.4	45	7.6	90	.23	.20	146	123		
	12 Noon	4.8	10.4	48	7.4	70	.15	.10	139	148		
	1 P.M.	5.0	10.4	52	6.4	95	.14	.17	142	183		
4P	2 P.M.	5.0	10.2	24	4.3	420	.35	.21	177	187		
	3 P.M.	4.0	10.2	56	6.4	180	.53	.33	177	205		
	4 P.M.	5.0	10.2	54	4.8	195	.35	.41	142	217		
4PM-12MN.	5 P.M.	5.0	10.2	37	5.6	204	.37	.41	160	228		
	6 P.M.	5.4	100	38	2.8	151	.27	.33	165	224		
	7 P.M.	5.2	100	40	5.2	145	.26	.30	159	224		
	8 P.M.	4.8	100	40	5.5	83	.15	.22	146	217		
	9 P.M.	4.8	100	22	5.4	234	.42	.27	198	186	M&D closed	
	10 P.M.	4.5	100	32	6.8	141	.26	.27	149	191		
	11 P.M.	4.8	100	55	6.6	61	.11	.26	142	145		
	12 MN.	4.5	100+	45.2	0	49.2	.09	.15	141.4	110		

		AVAILABLE	NOT AVAILABLE	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	MM
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓	✓	MM
	520		✓	MM
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	MM
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	MM
	520		✓	MM
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	MM
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	MM
	520		✓	MM
	530	✓		

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4

4-12 0

PLANT MANAGER:

HOURS COMPLIANCE:

HOURS NON COMPLIANCE:

EMISSION REPORT

A.B. BROWN #1

242

DATE AUG 30 1981

	TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O_2	PPM SO_2	HOURLY AVG. LBS/MBTU	3 HR. AVG. LBS/MBTU	STACK T.F.	GROSS M.W.
12MN-8A.M. SHIFT JE-- JE	1 A.M.	5.0	NA	47	8.5	45	.09	.09	139	107
	2 A.M.	5.0	NA	46	8.8	38	.08	.08	138	109
	3 A.M.	4.9	NA	46	8.7	46	.09	.08	139	107
	4 A.M.	4.5	NA	25	8.7	54	.11	.09	140	109
	5 A.M.	4.9	NA	25	8.7	64	.12	.10	140	108
	6 A.M.	4.9	NA	26	8.8	66	.13	.11	141	110
	7 A.M.	5.0	NA	48	8.7	57	.11	.11	138	114
	8 A.M.	4.8	—	23	8.3	100	.10	.11	139	113
8AM-4P.M. B. Leggett	9 A.M.	4.8	—	22	8.7	100	.14	.11	145	112
	10 A.M.	4.8	—	24	8.9	150	.20	.14	146	112
	11 A.M.	4.8	—	26	8.8	150	.22	.18	147	112
	12 Noon	5.4	11.4	26	6.0	160	.28	.20	145	170
	1 P.M.	5.5	11.4	24	5.7	160	.29	.23	159	200
	2 P.M.	5.0	11.5	29	5.8	220	.34	.27	160	200
	3 P.M.	5.0	11.0	32	5.6	190	.30	.31	153	200
	4 P.M.	5.2	100	29	5.2	119	.22	.28	147	212
	5 P.M.	5.2	100	30	4.8	109	.20	.23	147	213
4P.M.-12MN. 4 Hahn	6 P.M.	5.0	100	32	5.0	87	.16	.19	145	215
	7 P.M.	4.8	100	27	5.2	87	.16	.17	148	200
	8 P.M.	5.0	100	20	5.5	124	.23	.18	156	192
	9 P.M.	5.0	100	20	5.4	104	.33	.23	164	195
	10 P.M.	5.0	100	26	5.6	162	.29	.28	155	188
	11 P.M.	5.0	100	34	8.6	104	.19	.27	145	127
	12 MN.	5.5	100+	29.8	0.6	80.9	.15	.21	141.9	110

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 D

8-4 D

4-12 D

PLANT MANAGER:

HOURS COMPLIANCE:

HOURS NON COMPLIANCE:

		AVAILABLE	NOT AVAILABLE	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	MM
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603		✓	
FILTERS	510		✓	MM
	520		✓	MM
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	M.M.
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603		✓	Locked-up
FILTERS	510		✓	M.M
	520		✓	M.M.
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E		✓	M.M
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603		✓	M.M
FILTERS	510		✓	M M
	520		✓	M M
	[illegible]	✓		

142

	TIME	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack % O_2	PPM SO_2	Hourly Av.	3 Hr. Av. LBS/MBTU	LBS/HR	Stack T	I.P. Gross M.W.	
	1 A.M.	4.9	NA	30	8.7	73	.14	.15	141	107		
12 mid - 8 AM	2 A.M.	5.0	NA	29	9.8	65	.13	.13	140	107		
SHIFT	3 A.M.	5.0	NA	30	8.7	60	.12	.12	140	107		
	4 A.M.	5.2	NA	20	7.7	217	.39	.21	(195)	109		
	5 A.M.	5.2	NA	51	9.0	210	.40	.30	169	106		
	6 A.M.	5.2	NA	56	9.5	61	.13	.32	137	113		
	7 A.M.	5.0	NA	56	9.2	63	.13	.21	138	107		
	8 A.M.	4.8	10.2	29	9.3	100	.12	.12	139	110		
	9 A.M.	4.5	6.6	30	9.1	150	.14	.13	142	108		
8 AM - 4 PM.	10 A.M.	4.5	6.0	27	9.3	110	.15	.13	143	106		
	11 A.M.	3.8	6.0	38	8.2	105	.15	.14	145	115		
	12 Noon	4.0	6.2	36	5.5	150	.14	.14	147	190		
	1 P.M.	6.0	30+	21	3.4	160	.21	.16	156	250		
	2 P.M.	6.0	30+	27	3.3	200	.30	.21	(167)	260		
	3 P.M.	6.0	30+	28	2.8	150	.25	.25	156	260		
	4 P.M.	6.2	100	25	3.0	97	.18	.24	151	260		
	5 P.M.	5.8	100	25	5.0	83	.15	.19	149	225		
	6 P.M.	5.4	100	28	4.8	121	.22	.18	(186)	196		
	7 P.M.	5.2	NO	20	5.0	393	.36	.71	(249)	168	MODS closed	
	8 P.M.	5.0	100	31	7.0	205	.37	.43	(177)	163		
	9 P.M.	4.6	100	37	8.6	112	.20	.42	146	145		
	10 P.M.	4.4	100	32	9.6	83	.15	.24	143	121		
	11 P.M.	4.6	100	23	8.7	110	.21	.18	149	110		
	12 Mid.	4.5	100+	236	0.5	121.5	.23	.19	1524	110		

DATE: AUG 31, 1981

			Available	Not Available	Remarks
NORTH SCRUBBER	E		✓		
RECIRC. PUMP	W		✓		
SOUTH SCRUBBER	E			✓	M M
RECIRC. PUMP	W		✓		
SLAKERS		601	✓		
		602	✓		
		603		✓	
FILTERS		510		✓	M M
		520		✓	M M
		530	✓		
NORTH SCRUBBER	E		✓		
RECIRC. PUMP	W		✓		
SOUTH SCRUBBER	E			✓	M. M.
RECIRC. PUMP	W		✓		
SLAKERS		601	✓		
		602	✓		
		603	✓		
FILTERS		510		✓	M. M.
		520		✓	M. M.
		530	✓		
NORTH SCRUBBER	E		✓		
RECIRC. PUMP	W		✓		
SOUTH SCRUBBER	E			✓	M. M.
RECIRC. PUMP	W		✓		
SLAKERS		601	✓		
		602	✓		
		603	✓		
FILTERS		510		✓	M M.
		520		✓	M. M.
		530	✓		

SURGE TANK EMPTIED EACH SHIFT

12-8 ✓

8-4 ✓

4-12 ✓

PLANT MANAGER: RP

HOURS COMPLIANCE: 19

HOURS NON COMPLIANCE: 5

CAPACITY 24

LIME TRANSFER LINE PLUGGED

Report Boilers #1	Time	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack Opacity	% O_2	ppm SO_2	Hourly Av. lbs/MBTU	3 Hr. Av. lbs/MBTU	Stack T°	Gross MW
	1 A.M.	4.9	NA	60	8.8	76	.15	.19	143	110	
12 Mid-8 AM	2 A.M.	4.8	NA	62	0.0	38	.07	.14	138	110	
	3 A.M.	4.9	42	61	9.5	38	.08	.10	138	114	
Shift	4 A.M.	4.9	42	44	9.0	41	.08	.07	139	111	
	5 A.M.	4.9	42	31	8.7	56	.11	.08	142	110	
	6 A.M.	4.9	42	25	8.7	71	.14	.10	143	110	
	7 A.M.	4.9	42	27	8.8	73	.14	.12	142	110	
	8 A.M.	4.6	30+	26	8.8	45	.08	.11	136	111	
	9 A.M.	4.8	30+	24	8.7	145	.17	.13	150	113	
8 AM-4 PM.	10 A.M.	4.8	30+	24	8.8	150	.20	.15	147	112	
	11 A.M.	4.6	30+	27	8.9	145	.21	.19	148	111	
	12 Noon	4.7	30+	26	8.9	155	.23	.21	150	112	
	1 P.M.	4.9	30+	25	8.9	160	.26	.23	151	112	
	2 P.M.	4.8	30+	57	6.8	100	.22	.23	147	160	
	3 P.M.	4.2	30+	55	6.4	100	.11	.19	140	168	
	4 P.M.	4.2	100	54	7.2	61	.11	.14	141	165	
	5 P.M.	4.2	100	63	7.4	53	.10	.10	140	145	
	6 P.M.	4.5	100	44	7.2	69	.13	.11	145	145	
	7 P.M.	4.5	100	37	8.1	94	.17	.13	148	116	
	8 P.M.	4.5	100	29	8.8	113	.21	.16	153	111	
	9 P.M.	4.2	100	23	9.0	97	.18	.18	146	110	
	10 P.M.	4.5	100	36	9.0	84	.16	.18	144	109	
	11 P.M.	4.8	100	36	9.2	83	.16	.16	144	110	
	12 MN.	NA	NA	36	9.1	88	.17	.16	144	110	

Hours Surge Tank Overflowed Each Shift

12-8 0

8-4 0

4-12 0

Plant Manager: PP

Hours Compliance: 24

Hours Non Compliance: 0

Opacity 24

		Available	Not Avail.	Remarks
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	MM
Recirc. Pump	W	✓		
Slakers	601	✓		
	602		✓	MM
	603	✓		
Filters	510		✓	MM
	520	✓		MM
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	M.M.
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		M.M. released
	603	✓		
Filters	510		✓	M.M.
	520	✓		
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	MM
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510		✓	MM
	520	✓		
	530	✓		

Date: SEP 1981

SHIFT	TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O2	PPM SO2	HOURLY LBS/MBTU	3 HR. A LBS/MBTU	STACK LBS/MB	MW GROSS M.W.
12MN-8AM	1 A.M.	4.9	N/A	35	9.1	99	.19	.17	145	107
	2 A.M.	4.9	N/A	53	9.2	79	.15	.17	140	111
SHIFT	3 A.M.	4.9	22	58	8.9	59	.11	.15	138	110
	4 A.M.	5.0	13.2	54	8.6	66	.13	.13	146	111
	5 A.M.	5.0	14	47	8.8	90	.17	.13	143	109
	6 A.M.	5.0	14	58	9.0	40.8	.09	.12	136	110
	7 A.M.	5.0	14	58	8.8	48	.09	.11	140	114
	8 A.M.	4.8	13.8	31	8.7	140	.16	.10	145	110
	9 A.M.	4.8	13.8	24	8.7	150	.18	.14	146	110
8AM-4PM.	10 A.M.	4.8	13.8	25	8.6	140	.34	.22	147	110
	11 A.M.	5.0	14.0	28	8.5	140	.32	.27	143	110
	12 Noon	4.8	13.6	36	8.6	150	.37	.34	147	110
	1 P.M.	4.8	30+	53	8.5	120	.23	.30	139	110
	2 P.M.	4.8	4	55	8.6	100	.21	.26	133	110
	3 P.M.	5.0	10.0	54	8.5	90	.19	.21	138	109
	4 P.M.	5.0	10.0	57	8.6	50	.17	.18	138	108
	5 P.M.	5.0	10.0	56	8.6	50	.15	.16	138	109
4PM-12MN.	6 P.M.	5.0	10.0	57	8.6	50	.14	.15	138	108
	7 P.M.	5.0	NA	53	8.4	50	.14	.14	139	107
	8 P.M.	5.0	N/A	50	8.6	60	.14	.13	139	103
	9 P.M.	5.0	NA	54	8.5	60	.15	.14	139	108
10	10 PM	5.0	NA	NA	8.7	40	.13	.13	138	108
	11 PM	5.0	NA	62	8.7	40	.10	.12	138	109
	12 MN.	3.4	NA	59	8.3	34	.11	.11	138	108

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

PLANT MANAGER: BP

HOURS COMPLIANCE: 24

HOURS NON COMPLIANCE: 0

OPACITY 24

			SPARE	OUT OF SERVICE	REMARKS
NORTH SCRUBBER	E	✓			
RECIRC. PUMP	W	✓			
SOUTH SCRUBBER	E			✓	MM
RECIRC. PUMP	W	✓			
SLAKERS	601	✓			
	602	✓			
	603	✓			
FILTERS	510			✓	MM
	520	✓			
	530			✓	MM
NORTH SCRUBBER	E	✓			
RECIRC. PUMP	W	✓			
SOUTH SCRUBBER	E			✓	MM
RECIRC. PUMP	W	✓			
SLAKERS	601	✓			
	602	✓			
	603	✓			
FILTERS	510	✓			MM
	520	✓			
	530	✓			
NORTH SCRUBBER	E	✓			
RECIRC. PUMP	W	✓			
SOUTH SCRUBBER	E			✓	MM
RECIRC. PUMP	W	✓			
SLAKERS	601	✓			
	602	✓			
	603	✓			
FILTERS	510			✓	MM
	520	✓			
	530	✓			

	T	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack % O_2	PPM	SO_2 Hourly #	Lbs/MBT 3 Hr. Av.	Lbs/MBT Stack	Stack T° F / Gross M.W.
	1 A.M.	32	NA	62	8.5	31	.10	.10	137	108
	2 A.M.	32	NA	63	8.9	28	.09	.10	136	109
	3 A.M.	32	NA	63	8.8	23	.08	.09	136	108
	4 A.M.	32	NA	63	8.0	69	.21	.12	161	108
	5 A.M.	33	NA	26	8.0	210	.65	.30	(182)	110
	6 A.M.	33	NA	27	7.3	322	.90	.57	(213)	107
	7 A.M.	33	NA	30	8.2	252	.76	.76	(183)	107
	8 A.M.	32	30+	44	9.1	155	.39	.66	142	110
	9 A.M.	.5	10.8	60	9.0	90	.22	.45	137	110
	10 A.M.	.5	10.2	60	9.1	80	.16	.25	136	110
	11 A.M.	.5	10.2	60	9.2	80	.12	.16	136	109
	12 Noon	.5	10.4	62	9.1	60	.11	.12	136	108
	1 P.M.	.5	11.0	29	6.1	370	.95	.15	(189)	110
	2 P.M.	.5	10.4	33	4.8	370	.90	.41	(249)	146
	3 P.M.	30+	30+	48	8.3	150	.89	.67	(247)	115
	4 P.M.	30+	NA	50	9.0	120	.32	.70	143	117
	5 P.M.	30+	NA	52	9.0	100	.30	.50	139	110
	6 P.M.	30+	NA	62	9.0	80	.21	.27	139	112
	7 P.M.	30+	NA	66	9.0	40	.13	.21	139	112
	8 P.M.	20	NA	—	9.0	50	.12	.15	138	113
	9 P.M.	20	NA	30	9.0	40	.10	.11	138	109
	10 P.M.	10	NA	28	8.9	70	.08	.09	138	109
	11 P.M.	20	NA	30	8.9	40	.09	.08	139	109
	12 M.N.	20	20	28	8.6	22	.07	.07	136	106

HOURS SURGE TANK OVERFLOWED EACH SHIFT

1 12-8 0
8-4 0
4-12

HOURS COMPLIANCE: 18

HOURS NON COMPLIANCE: 6

OPACITY 24

3RD LINE TRANSFER LINE PLUGGED

PLANT MANAGER: RP

DATE: SEP " 1981

		Available	Not Available	Remarks
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	" "
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510		✓	" "
	520	✓		
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	" "
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		Emergency use only
	603	✓		
Filters	510		✓	" "
	520	✓		
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510		✓	
	520	✓		
	530	✓		

146

DATE: SEP 4 1981

	T.C.	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack Opacity	% O2	PPM	SO2 Hourly Av	LBS/MBTU 3 Hr. Ave	LBS/HR. Stack	Te G.Cross	M.W.	
	1 A.M.	20	100	29	9.0	—	.08	.07	136	108			
	2 A.M.	20	100	29	9.0	—	.08	.07	139	109			
	3 A.M.	20	100	29	9.0	—	.11	.09	139	108			
	4 A.M.	20	100	29	8.8	59	.18	.12	141	109			
	5 A.M.	20	11.2	29	8.8	71	.22	.16	142	112			
	6 A.M.	20	11.2	29	7.6	115	.34	.24	174	111	Mods closed		
	7 A.M.	20	11.0	29	7.2	290	.84	.46	216	112	"		
	8 A.M.	[illegible]	3.6	[illegible]	[illegible]	[illegible]	1.17	.78	[illegible]	112			
	9 A.M.	[illegible]	3.8	[illegible]	[illegible]	[illegible]	1.20	1.0	[illegible]	109			
	10 A.M.	[illegible]	3.6	[illegible]	7.8	[illegible]	1.23	1.19	[illegible]	108			
	11 A.M.	[illegible]	—	[illegible]	7.7	[illegible]	1.28	1.23	[illegible]	108			
	12 Noon	[illegible]	—	[illegible]	[illegible]	[illegible]	1.16	1.20	[illegible]	111			
	1 P.M.	[illegible]	—	3.2	8.8	193.6	.60	.49	141.6	108			
	2 P.M.	[illegible]	—	3.2	8.7	163.5	.73	1.2	146.	110			
	3 P.M.	[illegible]	—	[illegible]	[illegible]	[illegible]	.60	.84	[illegible]	106			
	4 P.M.	4.6	NA	6.4	8.8	345	.73	1.1	171	108			
	5 P.M.	4.9	NA	6.5	8.9	93	.24	.53	139	110			
	6 P.M.	4.7	NA	6.5	8.7	52	.16	.30	138	111			
	7 P.M.	4.6	NA	6.6	8.8	38	.12	.17	138	110			
	8 P.M.	4.6	NA	6.4	9.1	34	.09	.12	137	112			
	9 P.M.	4.9	NA	6.6	8.6	27	.08	.09	139	110			
	10 P.M.	4.8	NA	6.7	8.6	25	.08	.09	137	113			
	11 P.M.	4.8	NA	6.7	8.7	16	.05	.01	137	111			
	12 M.N.	4.7	4.00	6.8	8.7	11	.03	.00	136	111			

		Available	Not Avail.	Remarks
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	M M
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510		✓	M M
	520		✓	M M
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	M M.
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		Emergency use only
	603	✓		
Filters	510	✓		
	520	✓		
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	Down.
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		Emergency Use Only
	603	✓		
Filters	510	✓		
	520	✓		

Hours Surge Tank Overflowed Each Shift

12-8 0

8-4 0

4-12 Closed mod Dampers AT 5:30 AM Due To High Amps + 170 Truck

Hours Compliance: 16

Hours Non Compliance: 8

Plant Manager:

147

DATE: SEP - 1981

	Time	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack % O_2	PPM SO_2	Hourly # lbs/mbtu 3 hr. Ave.	lbs/mbtu	Stack Tf	o/ Gross M.W.
	1 A.M.	4.8	3.6	6.6	8.6	7	.02	.03	135	109
	2 A.M.	4.8	2.8	60	8.3	14	.05	.03	136	112
	3 A.M.	5.0	3.8	48	8.2	20	.06	.04	138	116
	4 A.M.	5.2	3.6	42	8.2	27	.08	.06	139	111
	5 A.M.	4.8	3.4	41	8.2	42	.13	.09	140	114
	6 A.M.	5.2	3.4	34	8.2	59	.18	.13	144	113
	7 A.M.	5.0	3.5	30	8.4	76	.24	.18	143	112
	8 A.M.	5.2	10.0	32	8.6	100	.19	.20	140	114
	9 A.M.	5.2	10.2	28	8.5	100	.21	.21	140	113
	10 A.M.	5.2	10.6	32	8.6	110	.21	.20	139	111
	11 A.M.	5.2	10.4	33	8.6	100	.21	.20	139	111
	12 Noon	4.8	10.6	28	8.7	90	.20	.20	139	111
	1 P.M.	4.8	10.5	42	8.1	210	.19	.19	140	111
	2 P.M.	4.6	10.2	43	8.5	210	.20	.19	140	111
	3 P.M.	4.8	30+	44	8.6	210	.20	.19	141	112
	4 P.M.	4.8	NA	64	8.4	66	.20	.20	141	110
	5 P.M.	4.6	NA	64	8.6	51	.15	.14	142	119
	6 P.M.	5.5	NA	52	6.8	77	.21	.18	143	117
	7 P.M.	5.0	NA	44	6.7	58	.15	.17	140	158
	8 P.M.	4.8	NA	42	6.6	57	.15	.17	141	163
	9 P.M.	4.6	NA	58	7.4	54	.15	.14	140	144
	10 P.M.	4.8	NA	62	8.8	34	.11	.13	138	124
	11 P.M.	4.8	NA	64	7.9	31	.10	.11	139	108
	12 M.N.	4.8	1.30	20	7.3	31	.31	.17	170	110

		Available	Not Avail.	Remarks
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	M.M
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520	✓		
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	M.M
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		Emergency use only
	603	✓		
Filters	510	✓		
	520	✓		
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	DLBA
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520	✓		

Hours Surge Tank Overflowed Each Shift

12-8 (1)

8-4

4-12 (1)

Hours Compliance: 23

Hours Non Compliance: 1

- stack problems

Plant Manager:

PORT BROWN #1

	T °F	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack % O_2	PPM SO_2	Hourly # lbs/MBTU	3 Hr. Av. lbs/MBTU	Stack Tf °F	Gross M.W.
1 A.M.	4.8	.5	33	8.3	121	.37	.25	141	108
2 A.M.	4.8	.5	35	8.3	100	.31	.33	138	109
3 A.M.	4.8	.5	38	8.5	92	.29	.32	139	111
4 A.M.	5.0	20	53	8.5	62	.19	.26	136	110
5 A.M.	5.0	21	55	8.5	52	.16	.01	135	108
6 A.M.	5.0	21	51	8.6	43	.14	.16	135	109
7 A.M.	5.0	21	44	8.6	39	.12	.14	134	110
8 A.M.	5.0	11	51	8.7	31	.10	.11	134	114
9 A.M.	5.0	11	63	8.8	26	.09	.10	133	109
10 A.M.	5.2	11	61	8.9	27	.09	.09	134	109
11 A.M.	5.0	10.5	55	8.8	29	.10	.08	NA	109
12 Noon	5.2	10.5	53	8.9	27	.09	.09	136	104
1 P.M.	4.9	10.5	56	8.9	28	.09	.09	137	108
2 P.M.	4.9	10.8	66	8.7	27	.09	.09	136	109
3 P.M.	4.9	NA	66	8.7	25	.09	.09	136	105
4 P.M.	5.0	NA	58	8.4	26	.08	.08	139	116
5 P.M.	4.9	NA	51	8.4	27	.08	.08	139	120
6 P.M.	4.9	NA	66	8.2	30	.09	.07	138	113
7 P.M.	4.9	NA	64	8.2	31	.08	.08	138	108
8 P.M.	5.0	NA	65	8.6	24	.07	.07	138	108
9 P.M.	5.0	NA	66	8.6	21	.06	.07	139	108
10 P.M.	5.0	NA	61	8.6	23	.07	.06	137	107
11 P.M.	5.2	NA	56	8.6	20	.07	.06	137	106
12 MN.	5.0	10.0	67	8.1	20	.06	.06	136	108

		Available	Not Avail.	Remarks
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	MM
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	–		
Filters	510	✓		
	520	✓		
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	MM
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520	✓		
	530	✓		
North Scrubber	E			
Recirc. Pump	W			
South Scrubber	E			
Recirc. Pump	W			
Slakers	601			
	602			
	603			
Filters	510			
	520			

DATE: SEP 6 1981

Hours Surge Tank overflowed each shift

12-8 0

8-4 0

4-12

Hours Compliance: 24

Hours Non Compliance: 0

Plant Manager:

149

PORT Brown #1

DATE SEP 7 1981

	T.E	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack % O2	PPM	SO2 Hourly Av.	LBS/MBTU 3 Hr. Av.	LBS/MBTU Stack	TF @ Gross M.W.
1 A.M.	.02	100	6.6	8.3	738	.07	.06	136	108	
2 A.M.	.02	100	6.5	8.4	734	.07	.06	136	108	
3 A.M.	.02	100	6.3	8.4	734	.06	.06	135	108	
4 A.M.	100	4.0	5.9	8.5	735	.06	.06	135	108	
5 A.M.	100	3.8	5.9	8.5	735	.06	.06	135	109	
6 A.M.	100	3.8	5.6	8.5	735	.07	.06	135	111	
7 A.M.	100	3.5	4.4	8.5	735	.07	.06	135	108	
8 A.M.	10.5	3.9	5.2	8.6	23	.08	.07	135	110	
9 A.M.	3.4	11.2	4.5	8.7	26	.09	.07	135	110	
10 A.M.	3.4	10.5	4.7	8.8	26	.08	.08	136	107	
11 A.M.	3.4	10.5	4.9	8.9	27	.09	.08	137	106	
12 Noon	3.4	NA	5.0	9.0	42	.13	.10	142	130	
1 P.M.	3.3	NA	5.2	7.5	67	.19	.13	143	138	
2 P.M.	3.4	NA	6.1	7.6	45	.13	.15	139	139	
3 P.M.	3.4	NA	6.0	7.3	42	.12	.15	142	148	
4 P.M.	3.3	NA	4.2	6.0	85	.21	.15	154	187	
5 P.M.	3.3	NA	4.4	6.3	88	.23	.18	148	185	
6 P.M.	3.3	NA	4.4	6.4	72	.18	.20	145	172	
7 P.M.	3.3	NA	4.1	6.9	97	.25	.32	160	163	
8 P.M.	3.2	NA	4.7	7.2	64	.18	.20	142	150	
9 P.M.	3.2	NA	4.6	7.2	52	.14	.19	142	134	
10 P.M.	3.2	NA	4.3	7.2	47	.13	.15	141	140	
11 P.M.	3.2	NA	4.1	7.4	40	.11	.13	141	126	
12 M.N.	3.2	100	4.6	6.9	35	.10	.11	140	132	

		Available	Not Avail.	Remarks
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	MM
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520	✓		
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	MM
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520	✓		
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E		✓	
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520	✓		

Hours Surge Tank Overflowed Each Shift

12-8

3-4

4-12

Hours Compliance: 24

Hours Non Compliance: 0

Plant Manager:

150

PORT

BOILER #1

	T E	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack % O2	PPM SO2	Hourly A. LBS/MBTU	3 HR. AVG LBS/MBTU	Stack TE	o/ Gross M.W.
1 A.M.	9.0	10.0	4.4	8.1	30	.09	.09	138	110	
2 A.M.	9.0	10.0	4.1	8.2	20	.09	.09	137	110	
3 A.M.	9.5	10.0	4.3	8.2	28	.09	.09	137	109	
4 A.M.	9.8	4.0	4.6	8.3	29	.08	.09	136	107	
5 A.M.	9.8	4.0	4.7	8.3	25	.08	.08	135	109	
6 A.M.	9.6	4.0	3.6	8.3	29	.09	.08	135	110	
7 A.M.	9.6	4.0	4.0	8.3	30	.09	.08	134	110	
8 A.M.	33	11.8	5.9	8.1	35	.11	.09	137	139	
9 A.M.	34	12.5	6.2	6.7	28	.08	.09	136	176	
10 A.M.	32	13	5.3	5.1	91	.22	.13	154	222	
11 A.M.	33	13	7.5	4.0	205	.46	.25	162	253	
12 Noon	32	11.5	2.6	4.2	240	.54	.40	162	262	
1 P.M.	32	12.1	3.5	4.7	206	.48	.49	153	246	
2 P.M.	33	12.8	3.5	4.2	112	.26	.42	144	237	
3 P.M.	32	12.1	2.8	4.1	228	.52	.41	171	237	
4 P.M.	32	13	2.3	3.8	219	.49	.42	166	250	
5 P.M.		Bucky Scrubber Problems								
6 P.M.	32	11	2.9	4.0	479	1106	.88	247	187	
7 P.M.	32	10.5	5.0	5.7	167	.41	.65	156	185	
8 P.M.	32	10.5	5.6	5.9	95	.19	.55	139	185	
9 P.M.	32	10.2	5.4	6.10	51	.13	.24	138	185	
10 P.M.	31	12	3.6	5.4	112	.27	.19	159	189	
11 P.M.	32	10.2	4.4	7.4	71	.20	.19	140	133	
12 Mid.			4.7	7.5	49	.14	.20	137	115	

		Available	Not Avail.
North Scrubber	E	✓	
Recirc. Pump	W	✓	
South Scrubber	E		✓ MM
Recirc. Pump	W	✓	
Slakers	601	✓	
	602	✓	
	603	✓	
Filters	510	✓	
	520	✓	
	530	✓	
North Scrubber	E	✓	
Recirc. Pump	W	✓	
South Scrubber	E	✓	
Recirc. Pump	W	✓	
Slakers	601	✓	
	602	✓	
	603	✓	
Filters	510	✓	
	520	✓	
	530	✓	
North Scrubber	E	✓	
Recirc. Pump	W	✓	
South Scrubber	E	✓	
Recirc. Pump	W	✓	Suction is shut
Slakers	601	✓	
	602	✓	
	603	✓	
Filters	510	✓	
	520	✓	
			✓ MM

MAY - 8 A.M. SHIFT

8 A.M. - 4 P.M.

4 P.M. - 12 Mid.

MAY SEP 1981

REMARKS

HOURS SURGE TANK
VERIFIED EACH SHIFT

12-8 ( )
8-4 ( )
4-12 ( )

PLANT MANAGER:

HOURS COMPLIANCE: 20

HOURS NON COMPLIANCE: 4

151

				GPA	STACK % O2	PPMS		LBS STACK	
	9.8	10.5	45	7.4	46	.13	.15	136	115
	9.8	10.5	45	7.5	42	.12	.13	135	114
	9.8	10.5	46	7.5	36	.11	.11	135	112
	10.0	10.8	47	7.6	35	.10	.10	134	112
D. Hall	9.8	10.8	42	7.7	31	.09	.10	135	112
6 A.M.	9.8	10.8	32	7.7	36	.11	.10	135	112
7 A.M.	9.8	11.0	34	7.8	43	.13	.10	134	112
8 A.M.	32	11.5	38	7.0	39	.11	.11	135	155
9 A.M.	32	11.5	58	6.6	52	.14	.12	141	169
10 A.M.	5.2	11.6	35	6.7	111	.30	.18	153	177
11 A.M.	5.1	10.9	45	6.9	110	.30	.24	146	180
12 Noon	5.2	10.9	57	7.1	122	.34	.31	148	183
1 P.M.	5.5	NA	58	5.9	105	.26	.30	143	208
B. Leggett	5.8	NA	37	5.5	119	.29	.29	148	219
3 P.M.	5.8	NA	34	3.8	158	.35	.30	157	247
4 P.M.	5.2	30+	34	4.9	150	.24	.29	148	224
5 P.M.	5.4	30+	34	4.9	110	.19	.25	145	220
6 P.M.	5.2	30+	27	2.9	300	.22	.21	169	216
7 P.M.	5.2	30+	24	2.8	340	.20	.40	252	218
8 P.M.	5.0	30+	24	2.7	540	.93	.64	254	217
9 P.M.	5.0	30+	23	3.4	820	1.64	1.12	251	196
10 P.M.	4.9	30+	23	5.9	780	1.37	1.47	242	140
11 P.M.	12.7	30+	30	7.3	210	.92	1.41	1.1	123
12 MN.	4.9	30+	29	7.7	192	.56	1.11	139	125

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 "

PLANT MANAGER:

HOURS COMPLIANCE: 19

HOURS-NON COMPLIANCE: 5

concentration more than allowable

(mod dampers closed pH

Under Pump

South Scrubber

North

Recirc. Pump

South

Recirc

Pipes plugged

North Scrubber E

Recirc. Pump W

South Scrubber E

Recirc. Pump W

SLAKERS 601

602

603

FILTERS 510

520

152

PORT 3 Brown #1

Time	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack % O_2	PPM	SO_2 Hourly Av.	LBS/MBTU 3 Hr. Ave.	LBS/MBT Stack	T. P. / Gross M.W.
1 A.M.	9.8	30+	33	8.0	170	.51	.66	139	119
2 A.M.	10.0	30+	29	8.6	177	.56	.54	141	114
3 A.M.	10.0	30+	39	8.7	148	.47	.51	139	111
4 A.M.	10.0	30+	29	8.6	168	.53	.51	141	109
5 A.M.	10.0	11.2	29	8.6	170	.53	.51	141	114
6 A.M.	10.0	11.0	49	8.6	125	.40	.48	136	112
7 A.M.	9.8	11.0	55	8.5	95	.30	.41	135	112
8 A.M.	5.5	11.2	58	7.6	81	.24	.31	137	143
9 A.M.	5.3	11.8	40	6.2	172	.45	.32	152	159
10 A.M.	5.5	36	35	6.0	216	.55	.41	151	180
11 A.M.	5.2	11.2	37	5.9	222	.56	.51	152	192
12 Noon	5.0	11.2	58	6.0	144	.37	.49	141	200
1 P.M.	5.2	NA	60	6.1	97	.25	.39	140	194
2 P.M.	5.8	NA	51	5.2	134	.33	.31	141	226
3 P.M.	5.6	13	37	4.2	185	.42	.33	157	254
4 P.M.	5.4	14.6	29	3.8	230	.30	.29	159	253
5 P.M.	5.0	11.8	41	5.0	190	.43	.43	155	230
6 P.M.	5.2	12.0	36	4.9	150	.33	.43	150	222
7 P.M.	5.1	12.2	32	4.7	155	.31	.35	153	240
8 P.M.	5.2	30+	29	4.3	195	.31	.31	158	245
9 P.M.	5.1	30+	35	5.1	190	.37	.33	156	236
10 P.M.	5.0	30+	45	5.9	120	.34	.33	152	200
11 P.M.	4.8	30+	31	6.4	140	.26	.32	147	180
12 MN.	4.9	1510	37	6.7	120	.29	.29	148	175

SHIFT
2nd - 8 a.m.
8 a.m - 4 P.m.
4 P.M. - 12 MN.

153

HOURS SURGE TANK OVERFLOWED EACH SHIFT

1
12-8 8
8-4 4
4-12 0

HOURS COMPLIANCE: 24

HOURS NON COMPLIANCE: 0

PLANT MANAGER:

SEP 10 1981

DATE:

		Available	Not Avail.	Remarks
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E	✓		
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520	✓		
	530		✓	mm
North Scrubber	E	✓		
Recirc. Pump	W	✓	✓	mm
South Scrubber	E	✓		
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520	✓		
	530		✓	mm
North Scrubber	E	✓		
Recirc. Pump	W		✓	mm
South Scrubber	E	✓		
Recirc. Pump	W	✓		
Slakers	601	✓		
	602		✓	m.m.
	603	✓		
Filters	510	✓		
	520	✓		
	530		✓	mm

ission
ORT
Brown #1

	Time	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack % O_2	PPM	SO_2 Hourly Avg	LBS/MBTU 3 HR. Avg.	LBS/MBTU Stack	Tec Gross MW
	1 A.M.	4.8	100	39	6.9	93	.26	.26	145	173
12-8 A.M.	2 A.M.	5.2	100	42	7.0	82	.23	.25	143	153
	3 A.M.	5.0	100	36	7.4	68	.20	.22	143	140
SHIFT	4 A.M.	5.0	100	14	8.7	104	.32	.25	150	112
	5 A.M.	5.0	100	29	9.2	76	.25	.25	139	113
	6 A.M.	5.0	100	35	8.9	48	.16	.24	135	115
	7 A.M.	5.2	100	54	6.8	52	.16	.18	138	178
	8 A.M.	6.0	100+	26	4.2	100	.13	.14	141	210
	9 A.M.	6.0	100+	24	3.8	130	.30	.19	157	262
8 A.M.-4 P.M.	10 A.M.	6.0	100+	32	4.3	100	.20	.23	151	258
	11 A.M.	6.0	100+	40	4.2	65	.19	.25	144	258
	12 Noon	5.5	17	30	3.8	60	.16	.20	144	250
JE	1 P.M.	5.5	16	28	3.4	100	.24	.19	157	267
	2 P.M.	5.5	100	26	3.8	90	.24	.21	151	260
	3 P.M.	5.5	100	27	4.1	115	.28	.25	155	259
	4 P.M.	5.2	30+	26	1.9	600	.58	.36	217	260
	5 P.M.	5.4	30+	21	3.9	250	1.22	.69	265	260
4 P.M.-12 MN.	6 P.M.	5.8	30+	14	2.4	625	.64	.81	282	260
	7 P.M.	6.0	30+	16	3.8	225	1.08	.98	237	260
	8 P.M.	5.8	30+	21	2.8	620	.65	.79	177	262
	9 P.M.	6.0	30+	24	4.0	300	.98	.90	208	265
B Leggett	10 P.M.	5.8	30+	24	5.0	340	.93	.85	198	222
	11 P.M.	5.0	30+	34	9.2	145	.47	.79	157	128
	12 MN.	4.9	100	41	9.4	83	.27	.55	142	115

HOURS SURGE TANK OVERFLOWED EACH SHIFT
1 12-8 D
2 8-4 O
3 4-12 O

PLANT MANAGER:

HOURS COMPLIANCE: 17

HOURS NON COMPLIANCE: 7

Line Tens./Slaker problems

SEP 11 1981

DATE:

		Available	Not Available	Remarks
North Scrubber	E	✓		
Recirc. Pump	W		✓	mm
South Scrubber	E	✓		
Recirc. Pump	W	✓		
Slakers	601	✓		
	602		✓	mm
	603	✓		
Filters	510	✓		
	520	✓		
	530		✓	mm
North Scrubber	E	✓		
Recirc. Pump	W		✓	mm
South Scrubber	E	✓		
Recirc. Pump	W	✓		
Slakers	601	✓		
	602		✓	mm
	603	✓		
Filters	510	✓		
	520	✓		
	530		✓	mm
North Scrubber	E	✓		
Recirc. Pump	W		✓	mm
South Scrubber	E	✓		
Recirc. Pump	W	✓		
Slakers	601	✓		
	602		✓	mm
	603	✓		
Filters	510	✓		
	520	✓		
	530		✓	mm

154

PORT BROWN #1

	T.I.D.	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack % O_2	PPM	SO_2 Hourly Avg	LBS/MBTU 3 HR. AVG.	LBS/MBTU Stack	Ter Gr. Loss M.W.
	1 A.M.	4.8	100	51	9.2	51	.13	.30	140	108
42-8 A.M.	2 A.M.	5	100	52	9.2	33	.11	.18	138	107
	3 A.M.	5	100	52	9	23	.08	.12	137	106
11 FT	4 A.M.	5	100	53	9	19	.07	.08	136	108
22	5 A.M.	5	100	51	9	15	.05	.06	136	108
	6 A.M.	4.8	100	54	9.1	10	.04	.05	135	108
	7 A.M.	4.7	100	55	8.8	9.9	.04	.04	135	108
	8 A.M.	4.9	12.2	55	8.5	16	.05	.04	136	110
	9 A.M.	4.9	13	34	8.5	24	.08	.05	138	110
4-4 P.M.	10 A.M.	5.0	12.2	30	7.2	46	.13	.08	144	140
	11 A.M.	4.9	12.3	28	6.7	81	.22	.14	148	139
	12 Noon	4.9	13.8	40	7.0	70	.20	.18	142	144
	1 P.M.	5	12	42	7.1	47	.13	.18	140	140
	2 P.M.	4.8	NA	43	6.9	45	.13	.15	141	144
	3 P.M.	4.8	NA	45	7.0	42	.12	.12	141	143
	4 P.M.	4.6	30+	48	7.2	60	.11	.11	141	140
	5 P.M.	4.6	30+	36	7.3	75	.11	.11	141	136
11-12 MN.	6 P.M.	5.0	30+	29	6.3	75	.09	.10	X42	160
	7 P.M.	4.6	30+	46	7.5	60	.06	.08	142	130
	8 P.M.	4.8	30+	49	7.4	60	.04	.06	141	130
	9 P.M.	4.7	30+	49	7.4	60	.02	.04	141	130
B. Leggett	10 P.M.	4.8	30+	51	7.4	60	.03	.03	140	130
	11 A.M.	4.8	30+	49	7.8	60	.03	.02	140	130
	12 MN.	4.8	100	50	8.1	74	.03	.02	139	130

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

HOURS COMPLIANCE: 24

HOURS NON COMPLIANCE: 0

PLANT MANAGER:

SEP 12 1981

DATE:

		Available	Not Available	Remarks
North Scrubber	E	✓		
Recirc. Pump	W		✓	MM
South Scrubber	E	✓		
Recirc. Pump	W		✓	MM
Slakers	601	✓		
	602		✓	MM
	603	✓		
Filters	510	✓		
	520	✓		
	530		✓	MM
North Scrubber	E	✓		
Recirc. Pump	W		✓	MM
South Scrubber	E	✓		
Recirc. Pump	W		✓	MM
Slakers	601	✓		
	602		✓	
	603	✓		
Filters	510		✓	Tank Cleaning Running emerg. only
	520	✓		
	530		✓	MM
North Scrubber	E	✓		
Recirc. Pump	W		✓	MM
South Scrubber	E	✓		
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		Emergency only
	520	✓		

EMISSION REPORT

B. Brown #1

SEP 13 1981

DATE: .....

	TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O2	PPM SO2	HOURLY AVG LBS/MBTU	3 HR. AVG. LBS/MBTU	STACK TEMP	GROSS M.W.
12 MN - 8 AM Shift	1 A.M.	4.7	100	47	7.9	7.2	.03	.02	140	130
	2 A.M.	4.7	100	46	8.3	6.2	.03	.02	139	120
	3 A.M.	5	100	55	8.3	6.1	.02	.02	138	120
	4 A.M.	4.9	100	43	8.4	5.1	.02	.02	137	120
	5 A.M.	4.9	100	46	8.4	4.3	.02	.01	137	120
	6 A.M.	4.9	7.5	32	8.1	5.7	.02	.02	138	120
	7 A.M.	4.9	7.5	28	8.3	2.5	.08	.04	144	120
	8 A.M.	5.0	4.2	35	8.1	27	.08	.06	139	120
8 AM - 4 P.M.	9 A.M.	5.0	4.2	39	8.2	19	.06	.07	137	120
	10 A.M.	4.8	4.2	42	8.1	17	.05	.06	137	120
	11 A.M.	4.8	4.2	49	7.8	15	.04	.05	137	118
	12 Noon	4.8	30+	58	7.8	16	.05	.04	137	119
Nobs	1 P.M.	4.8	30+	59	7.7	14	.04	.04	137	120
	2 P.M.	4.8	30+	64	7.7	14	.04	.04	138	121
	3 P.M.	4.8	30+	65	7.7	10	.03	.03	138	121
	4 P.M.	4.8	30+	54	7.8	60	.02	.03	138	120
	5 P.M.	4.8	30+	53	7.9	40	.02	.02	139	120
4 PM - 12 MN	6 P.M.	4.8	30+	54	7.9	45	.02	.02	139	120
	7 P.M.	4.6	30+	54	7.8	45	.01	.01	140	120
	8 P.M.	4.4	30+	54	7.8	45	.01	.01	139	120
B. Liggett	9 P.M.	4.6	30+	53	7.9	45	.01	.01	139	120
	10 P.M.	4.5	30+	53	7.8	20	.01	.01	139	120
	11 P.M.						.01	.01	139	120
	12 MN.	4.5	100	56	7.9	1.4	.01	.01	137	120

		AVAILABLE	NOT AVAILABLE	REMARKS
North Scrubber	E	✓		
Recirc. Pump	W		✓	M.M.
South Scrubber	E	✓		
Recirc. Pump	W		✓	M.M.
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		Emerg. only
	520	✓		
	530		✓	M.M.
North Scrubber	E	✓		
Recirc. Pump	W		✓	M.M.
South Scrubber	E	✓		
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		Emergency only
	520	✓		
	530		✓	M.M.
North Scrubber	E	✓		
Recirc. Pump	W		✓	M.M.
South Scrubber	E	✓		
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		Emergency only
	520	✓		
	530		✓	M.M.

Hours Surge Tank Overflowed Each Shift

12-8 0

8-4 0

4-12 0

Hours Compliance: 24

Hours Non Compliance: 0

Plant Manager: .....

low conc. b/t ... landfill

156

	Gross Load (MW)	Regen Flow %	P.H. Required	Continuous	Avg. P.H.	North P.H.	South P.H.	AEH Control Valve Set Point	Control Valve Auto	Control Valve Man	AEH Control Valve Set Point	(✓) SEP 14 1981 IF ON 601	602	603	Tank Level %	Mod Damp Position	Mod Damper Position	Stack Temp.
1:00 A.M.	120	60				6.5	6.4	100		✓	100	✓			38	45	45	137
2:00 A.M.	120	60				6.5	6.4	100		✓	100	✓			37	45	45	136
3:00 A.M.	120	60				6.5	6.35	100		✓	100	✓			37	45	45	135
4:00 A.M.	120	60		.20		6.5	6.35	100		✓	100	✓			37	45	45	135
5:00 A.M.	120	60		7.65		6.5	6.35	100		✓	100	✓			37	45	45	135
6:00 A.M.	120	60				6.5	6.3	100		✓	100	✓			40	45	45	135
7:00 A.M.	120	60				6.45	6.3	100		✓	100	✓			40	45	45	135
8:00 A.M.	119	60				6.5	6.3	100		✓	100	✓			42	45	45	135
9:00 A.M.	122	60				6.5	6.3	100		✓	100	✓		✓	46	45	45	137
10:00 A.M.	185	64	1.20		OK	6.5	6.3	100		✓	100	✓		✓	68	65	65	140
11:00 A.M.	237	64	1.52	.21	OUT X	6.4	6.2	100		✓	100	✓		✓	84	65	65	142
12:00 Noon	242	64	2.05	9.81	OUT X	6.5	6.3	100		✓	100	✓	X	✓	96	60	60	214
1:00 P.M.	254	66	1.99		OUT X	6.5	6.3	100		✓	100	✓		✓	94	65	65	150
2:00 P.M.	250	67	1.49		OUT X	6.4	6.3	100		✓	100	✓		✓	96	75	60	147
3:00 P.M.	230	68	.89		OUT X	6.3	6.4	100		✓	100	✓		✓	96	68	68	140
4:00 P.M.	230	68	.76		OK	6.3	6.4	100		✓	100	✓		✓	96	65	65	139
5:00 P.M.	215	68	.24		OK	6.3	6.4	100		✓	100	✓		✓	96	60	60	138
6:00 P.M.	195	67	.44	.249	OK	6.4	6.5	100		✓	100	✓		✓	95	55	55	142
7:00 P.M.	195	67	✓	9.27	OK	6.4	6.4	100		✓	100	✓		✓	96	55	55	140
8:00 P.M.	215	67	.24		OK	6.4	6.4	100		✓	100	✓		✓	95	55	55	139
9:00 P.M.	200	67	.08		OK	6.4	6.5	100		✓	100	✓		✓	94	55	55	142
10:00 P.M.	170	68	✓		OK	6.5	6.5	100		✓	100	✓		✓	94	55	55	141
11:00 P.M.	145	63	✓		OK	6.5	6.5	100		✓	100	✓			94	45	45	131
12:00 P.M.	127	60		.306	8.2	6.6	6.5	100		✓	100	✓			90	45	45	

12-9 MD

8-4 J.A.

REMARKS: MODS. EXERCISED @ 4:15 AM — Mods Except 6 45 PM.

REPORT / J.B. Brown #1

TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O_2	PPM SO_2	HOURLY # LBS/MBTU	3 HR. AVG LBS/MBTU	STACK T °F	GROSS M.W.	
1 A.M.	4.5	100	55	7.9	1.9	.01	.00	139	120	
2 A.M.	4.7	100	54	7.9	1.9	.01	.01	138	120	
3 A.M.	4.8	100	50	8.1	2.0	.01	.01	138	120	
4 A.M.	4.7	100	35	8	2.0	.01	.01	138	120	
5 A.M.	4.8	86	43	8	3.2	.02	.01	138	120	
6 A.M.	4.7	86	48	8	2.9	.01	.01	137	120	
7 A.M.	4.7	84	44	8	1.4	.00	.01	137	120	
8 A.M.	4.9	25	45	7.7	0.3	.00	.00	136	119	
9 A.M.	4.9	25	44	7.6	1.4	.00	.00	137	122	
10 A.M.	5.2	25	35	4.6	26	.06	.02	168	185	MOD 3 ONLINE
11 A.M.	5.2	30+	29	3.1	42	.09	.05	147	237	
12 Noon	5.2	30+	21	2.7	141	.29	.17	215	242	MOD 2 ONLINE
1 P.M.	5.7	30+	26	4.1	86	.20	.19	152	236	
2 P.M.	5.5	30+	33	4.0	37	.08	.15	147	236	
3 P.M.	5.2	30+	28	4.0	50	.05	.10	142	230	
4 P.M.	5.2	30+	38	4.0	50	.08	.10	142	230	
5 P.M.	5.2	30+	44	4.9	50	.03	.05	141	215	
6 P.M.	5.0	30+	46	5.5	70	.06	.03	145	195	
7 P.M.	6.0	30+	45	5.5	60	.06	.03	145	195	
8 P.M.	5.8	30+	34	4.6	50	.05	.04	144	215	
9 P.M.	5.2	30+	38	5.3	50	.06	.05	148	200	
10 P.M.	5.2	30+	53	6.1	50	.05	.05	144	170	
11 P.M.	4.8	30+	50	6.8	45	.02	.04	139	145	
12 MN.	4.7	30+	56	7.6	0.7	.01	.02	137	122	

12md-8a.m. SHIFT

8A.M.-4P.M.

4P.M.-12 MID.

8-4 Night

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0
8-4 0
4-12 0

PLANT MANAGER:

HOURS COMPLIANCE: 19

HOURS NON COMPLIANCE: 5
- low concentration
(sudden drop: Sunday to Monday)

		AVAILABLE	NOT AVAIL.	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W		✓	
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		Emerg. only
	520	✓		
	530		✓	M M
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W		✓	M M
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520	✓		
	530		✓	M M.
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W		✓	M M
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520	✓		
	530		✓	M M

DATE: SEP 4 1981

MISSION EPORT

B. BROWN #1

TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK OPACITY	% O2	PPM SO2	HOURLY AVG	LBS/MBTU 3 HR. AVG.	LBS./MBTU STACK	TEC. GROSS M.W.
1 A.M.	4.9	30+	44	7.5	0.7		00	00	136	128
2 A.M.	4.7	30+	50	7.8	2.4		00	00	136	120
3 A.M.	4.8	30+	48	7.9	2.8		00	00	136	120
4 A.M.	4.9	30+	57	8	3.6		00	00	136	120
5 A.M.	4.9	30+	42	8	5.5		00	00	135	120
6 A.M.	4.7	30+	39	8.1	5.7		00	00	135	120
7 A.M.	4.9	30+	36	8.1	4.4		00	00	136	120
8 A.M.	4.9	30+	35	7.7	0		00	00	137	119
9 A.M.	5.0	25	35	7.8	0		00	00	138	120
10 A.M.	5.0	25	29	7.3	0		00	00	137	141
11 A.M.	5.0	25	59	7.0	0		00	00	136	147
12 NOON	5.0	25	58	7.1	0		00	00	136	140
1 P.M.	5.0	25	58	7.7	0		00	00	135	139
2 P.M.	5.0	25	50	8.5	0		00	00	135	120
3 P.M.	5.0	25	50	8.5	0		00	00	135	119
4 P.M.	5.2	30+	52	8.9	40		.00	.00	135	119
5 P.M.	5.2	30+	52	8.9	40		.00	.00	135	120
6 P.M.	5.0	30+	53	8.9	40		.00	.00	135	120
7 P.M.	5.4	30+	49	9.0	30		.00	.00	135	121
8 P.M.	5.4	30+	54	9.0	40		.00	.00	135	121
9 P.M.	5.5	30+	54	9.1	40		.00	.00	134	115
10 P.M.	5.5	30+	54	9.1	20		.00	.00	133	116
11 P.M.	5.5	30+	52	8.7	20		.00	.00	133	128
12 MN.	5.3	30+	54	9.2	1.6		00	00	135	115

2nd - 8 a.m.

SHIFT

3 A.M. - 4 P.M.

11 P.M. - 12 MN.

B. Leggett

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4

HOURS COMPLIANCE: 24

HOURS NON COMPLIANCE: 0

OPACITY 24

PLANT MANAGER: BP

SEP 15 1981

DATE:

		AVAILABLE	NOT AVAILABLE	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W		✓	MM
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520	✓		
	530		✓	MM
NORTH SCRUBBER	E			
RECIRC. PUMP	W			
SOUTH SCRUBBER	E			
RECIRC. PUMP	W			
SLAKERS	601			
	602			
	603			
FILTERS	510			
	520			
	530			
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W		✓	MM
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520	✓		

PORT

Brown #1

	TIME	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack % O2	PPM SO2	Hourly Av	Lbs/MBTU 3 Hr. Av	Lbs/Hr. Stack	Temp.	Gross MW
	1 A.M.	5.5	30+	50	9.4	3.7	00	00	132	115	
Mid-8 A.M.	2 A.M.	5.3	30+	42	9.3	2.1	.01	00	135	115	
	3 A.M.	5.2	30+	40	9.2	9.1	.03	.01	138	115	
HIFT	4 A.M.	5.3	30+	42	9.1	13.4	.05	.02	137	115	
	5 A.M.	5.2	30+	38	9.4	15.2	.05	.04	136	110	
	6 A.M.	5.2	30+	28	9.1	30	.10	.06	143	110	
	7 A.M.	5.0	30+	34	9.4	37	.12	.09	139	110	
	8 A.M.	5.0	30+	35	9.0	36	.12	.11	137	110	
	9 A.M.	5.2	30+	35	9.1	35	.12	.11	138	110	
M-4 P.M.	10 A.M.	5.2	30+	36	9.1	34	.12	.11	137	110	
	11 A.M.	5.4	30	43	7.7	36	.11	.11	139	150	
	12 Noon	5.5	24	52	7.2	23	.07	.09	135	159	
	1 P.M.	5.2	25	42	7.2	39	.11	.09	143	160	
TN	2 P.M.	5.2	24	43	7.2	40	.14	.10	141	155	
	3 P.M.	NA	NA	44	7.2	53	.15	.13	144	156	
	4 P.M.	5.5	92	54	7.9	60	.11	.13	135	145	
	5 P.M.	5.2	82	54	7.6	48	.14	.13	NA	144	
4-12 MN.	6 P.M.	5.2	82	38	7.2	63	.18	.14	144	139	
	7 P.M.	5.2	82	47	8.0	53	.16	.15	139	123	
	8 P.M.	5.0	81	39	NA	38	.12	.15	134	111	
	9 P.M.	5.0	82	41	9.0	30	.11	.12	138	112	
IE	10 P.M.	5.2	82	43	9.0	27	.105	.110	138	106	
	11 P.M.	5.1	82	44	8.9	23	.05	.05	134	111	
	12 MN.	5.1	82	46	8.9	22	.04	.02	132	110	

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 1

HOURS COMPLIANCE:

HOURS NON COMPLIANCE:

PLANT MANAGER:

SEP 16 1981		Available	Not Available	Remarks
North Scrubber	E	✓		
Recirc. Pump	W		✓	mm
South Scrubber	E	✓		
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520	✓		
	530		✓	mm
North Scrubber	E	✓		
Recirc. Pump	W		✓	mm
South Scrubber	E	✓		
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510	✓		
	520	✓		
	530		✓	mm
North Scrubber	E	✓		
Recirc. Pump	W		✓	mm
South Scrubber	E	✓		
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓	✓	Won't feed
	603	✓		
Filters	510	✓		
	520	✓		
			✓	mm

160

REPORT

B. BROWN #1

12MD-8A.M. SHIFT

3A.M-4P.M.

11P.M-12 M.N.

TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O_2	PPM SO_2	HOURLY AV	LBS/MBTU 3 HR. AVG	LBS/MBT. STACK	T1 ° GROSS M.W.
1 A.M.	5.1	82	28	8.7	33	.11	.06	137	110
2 A.M.	5	82	29	8.7	43	.14	.10	138	110
3 A.M	5.3	82	25	9.2	53	.18	.14	143	110
4 A.M	5.3	82	24	9.3	73	.24	.18	145	110
5 A.M	5.4	82	28	9.5	57	.19	.20	137	110
6 A.M	5.5	35	30	9.6	53	.18	.20	134	110
7 A.M	5.5	82	30	9.4	58	.19	.18	137	110
8 A.M	5.5	24	32	9.2	52	.18	.18	135	110
9 A.M.	5.5	25	34	9.2	55	.18	.18	137	110
10 A.M	5.5	26	37	9.3	55	.19	.18	137	110
11 A.M	5.5	25	38	9.5	46	.13	.16	131	109
12 NOON	5.5	25	41	9.0	41	.13	.15	134	123
1 P.M.	5.5	25	51	9.2	35	.12	.12	131	114
2 P.M.	5.3	25	48	9.1	36	.12	.12	134	110
3 P.M.	5.3	24.5	45	8.8	51	.16	.13	138	112
4 P.M.	5.3	82	49	9.3	44	.15	.14	136	110
5 P.M	5.3	82	47	9.1	40	.13	.14	133	109
6 P.M.	5.2	82	42	8.9	32	.11	.13	131	110
7 P.M.	5.9	82	42	8.9	27	.09	.10	131	110
8 P.M.	5.9	82	39	8.9	18	.06	.06	131	109
9 P.M.	5.5	82	38	8.9	21	.07	.07	132	107
10 P.M.	5.2	82	29	9.1	46	.15	.09	139	110
11 P.M.	5.2	82	35	9.3	41	.14	.11	136	113
12 M.N.	5.4	82	33	9.6	100	.17	.15	137	110

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

HOURS COMPLIANCE: 24

HOURS NON COMPLIANCE: 0

PLANT MANAGER:

217

DATE: SEP 17 1981

		AVAILABLE	NOT AVAILABLE	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W		✓	MILL
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		WON'T FEED
	603	✓		
FILTERS	510	✓		
	520	✓		
	530		✓	MILL
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W		✓	MM
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510	✓		
	520	-		
	530		✓	MM
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W		✓	MM
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602		✓	MT for 8 hr.
	603	✓		
FILTERS	510	✓		
	520	✓		
	530		✓	MM

REPORT / J.B. Brown #1

TIME	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack Opacity	% O_2	PPM SO_2	Hourly # LBS/MBTU	3 HR. Av. LBS/MBTU	Stack T	I.P. Gross M.W.
1 A.M.	5.4	30+	32	9.6	70	.14	.14	137	110	
2 A.M.	5.4	30+	32	9.7	80	.15	.15	137	110	
3 A.M.	5.4	30+	34	9.7	80	.13	.15	137	110	
4 A.M.	5.5	30+	36	9.7	80	.18	.16	137	110	
5 A.M.	5.5	30+	30	9.6	80	.18	.17	138	112	
6 A.M.	5.4	30+	33	9.4	80	.17	.17	137	112	
7 A.M.	5.6	30+	35	9.3	80	.13	.15	132	112	
8 A.M.	5.5	30+	36	9.1	47	.16	.15	131	110	
9 A.M.	5.5	30+	36	9.0	41	.13	.14	134	109	
10 A.M.	5.5	30+	36	8.9	37	.12	.13	134	110	
11 A.M.	5.3	30+	37	9.8	43	.14	.13	135	109	
12 Noon	5.3	30+	40	9.0	46	.10	.13	136	110	
1 P.M.	5.3	30+	41	9.0	44	.15	.14	137	108	
2 P.M.	5.2	30+	42	9.0	46	.15	.14	138	108	
3 P.M.	5.2	30+	43	9.1	47	.16	.15	138	108	
4 P.M.	5.2	82	45	9.2	50	.17	.15	139	110	
5 P.M.	5.2	82	41	9.3	43	.15	.15	136	107	
6 P.M.	5.2	82	42	9.4	39	.13	.14	134	108	
7 P.M.	5.5	82	38	9.4	41	.14	.13	135	106	
8 P.M.	49	83	68	9.8	38	.14	.13	135	78	
9 P.M.	22	83	70	10.0	15	.06	.11	179	-4	
10 P.M.	28	83	31	10.0	11	.00	.06	161	-6	
11 P.M.	16	83	29	10.0	16	.00	.01	145	-9	
12 MN.	30+	30+	68	10+	25	.00	.01	100	—	

12 MN - 8 A.M. SHIFT

8 A.M. - 4 P.M.

4 P.M. - 12 MN.

HOURS SURGE TANK OVERFLOWED EACH SHIFT — SEP 18 1981

12-8 0

8-4 0

4-12 0

UNIT OFF AT 8:08pm

PLANT MANAGER:

HOURS COMPLIANCE:

HOURS NON COMPLIANCE:

		Available	Not Avail.	Remarks
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W		✓	M.M.
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	M.M.
	520	✓		
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W		✓	M M
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	M M
	520	✓		
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W		✓	M M
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	M M
	520	✓		
	530	✓		

DATE: OCT 20 1981

SEPT 18, 81

REMARKS

MISSION
EPORT.
B. BROWN #1

DATE: SEP 1 0 1981

TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O2	PPM SO2	HOURLY AVG LBS/MBTU	3HR. AVG. LBS./MBTU	STACK TEMP	GROSS M.W.
1 A.M.									
2 A.M.									
3 A.M.									
4 A.M.									
5 A.M.									
6 A.M.									
7 A.M.									
8 A.M.									
9 A.M.									
10 A.M.									
11 A.M.									
12 NOON									
1 P.M.									
2 P.M.									
3 P.M.									
4 P.M.									
5 P.M.									
6 P.M.									
7 P.M.									
8 P.M.									
9 P.M.									
10 P.M.									
11 P.M.									
12 MN.									

2nd - 8 A.M.

SHIFT

8 A.M. - 4 P.M.

4 P.M. - 12 MN.

On tape

		AVAILABLE	NOT AVAILABLE	REMARKS
NORTH SCRUBBER	E			
RECIRC. PUMP	W			
SOUTH SCRUBBER	E			
RECIRC. PUMP	W			
SLAKERS	601			
	602			
	603			
FILTERS	510			
	520			
	530			
NORTH SCRUBBER	E			
RECIRC. PUMP	W			
SOUTH SCRUBBER	E			
RECIRC. PUMP	W			
SLAKERS	601			
	602			
	603			
FILTERS	510			
	520			
	530			
NORTH SCRUBBER	E			
RECIRC. PUMP	W			
SOUTH SCRUBBER	E			
RECIRC. PUMP	W			
SLAKERS	601			
	602			
	603			
FILTERS	510			
	520			

HOURS SURGE TANK OVERFLOWED EACH SHIFT

1
12-8 ____
8-4 ____
4-12 ____

PLANT MANAGER: ____

HOURS COMPLIANCE: ____

HOURS NON COMPLIANCE: ____

REPORT

J. B. Brown #1

DATE: OCT 20. 1981

TIME	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack % O2	PPM SO2	Hourly A. LBS/MBTU	3 HR. Av. LBS/MBTU	Stack T.	I.P. Gross M.W.
1 A.M.									
2 A.M.									
3 A.M.									
4 A.M.									
5 A.M.									
6 A.M.									
7 A.M.									
8 A.M.									
9 A.M.									
10 A.M.									
11 A.M.									
12 Noon									
1 P.M.									
2 P.M.									
3 P.M.									
4 P.M.									
5 P.M.									
6 P.M.									
7 P.M.									
8 P.M.									
9 P.M.									
10 P.M.	92	NA	70	10.0	13	00	00	120	-5
11 P.M.									
12 MN.									

12 Mid - 8 A.M. SHIFT

8 A.M. - 4 P.M.

4 P.M. - 12 MN.

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 ____

8-4 ____

4-12 ____

PLANT MANAGER: ____

HOURS COMPLIANCE: ____

HOURS NON COMPLIANCE: ____

		AVAILABLE	NOT AVAIL.	REMARKS
NORTH SCRUBBER	E			
RECIRC. PUMP	W			
SOUTH SCRUBBER	E			
RECIRC. PUMP	W			
SLAKERS	601			
	602			
	603			
FILTERS	510			
	520			
	530			
NORTH SCRUBBER	E			
RECIRC. PUMP	W			
SOUTH SCRUBBER	E			
RECIRC. PUMP	W			
SLAKERS	601			
	602			
	603			
FILTERS	510			
	520			
	530			
NORTH SCRUBBER	E			
RECIRC. PUMP	W			
SOUTH SCRUBBER	E			
RECIRC. PUMP	W			
SLAKERS	601			
	602			
	603			
FILTERS	510			
	520			
	530			

	ME Duct #2	Opacity Duct #1	Opacity Stack	Opacity Stack	% O_2	PPM SO	Hourly	LBS/MB. 3 HR. A	LBS/MB.	Stac T	Tr. Gros M.W.
1 A.M.			Start			Lime					
2 A.M.											
3 A.M.	1.8	30+	30	8.1	110	.56	.44	177	105		
4 A.M.				O F F							
5 A.M.											
6 A.M.											
7 A.M.	Lime reactor agitator would not run										
8 A.M.											
9 A.M.											
10 A.M.											
11 A.M.											
12 Noon											
1 P.M.											
2 P.M.											
3 P.M.											
4 P.M.	5.2	83	33	6.8	356	.96	.93	259	108		
5 P.M.	5.2	82	37	7.1	333	.92	.93	258	106		
6 P.M.	5.2	82	38	7.6	325	.93	.93	249	109		
7 P.M.	5.0	82	39	8.2	230	.69	.84	209	110		
8 P.M.	5.2	82	59	8.7	113	.36	.65	146	111		
9 P.M.	5.2	82	63	8.7	94	.30	.44	140	109		
10 P.M.	5.2	82	63	8.5	89	.20	.31	142	106		
11 P.M.	5.2	82	45	8.7	157	.50	.35	162	104		
12 MN.	5.1	30+	51	9.1	175	.38	.38	147	110		

	Available	Not Avail.
North Scrubber E		
Recirc. Pump W		
South Scrubber E		
Recirc. Pump W		
Slakers 601		
Slakers 602		
Slakers 603		
Filters 510		
Filters 520		
Filters 530		
North Scrubber E		
Recirc. Pump W		
South Scrubber E		
Recirc. Pump W		
Slakers 601		
Slakers 602		
Slakers 603		
Filters 510		
Filters 520		
Filters 530		
North Scrubber E	✓	
Recirc. Pump W	✓	
South Scrubber E	✓	
Recirc. Pump W	✓	
Slakers 601	✓	
Slakers 602	✓	
Slakers 603	✓	
Filters 510		✓ mm
Filters 520	✓	
Filters 530	✓	

SEP 21 1981

Rem. 5

Hours Surge Tank Overflowed Each Shift: SEP 21 1981 264

12-8

8-4

4-12 0

Plant Manager:

Hours Compliance:

Hours Non Compliance:

Scrubber on at 6:00 pm

165

REPORT

J.B. Brown #1

DATE: SEP 22 1981.

TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O_2	PPM SO_2	HOURLY # LBS/MBTU	3 HR. AVG. LBS./MBTU	STACK T. °F	GROSS M.W.
1 A.M.	5.1	30+	50	8.9	145	.34	.40	146	110
2 A.M.	5.1	30+	54	9.1	100	.27	.32	141	106
3 A.M.	5.1	30+	55	9.1	95	.21	.27	140	110
4 A.M.	5.4	30+	39	9.0	100	.20	.22	139	110
5 A.M.	5.4	30+	58	9.0	90	.19	.20	139	113
6 A.M.	5.1	30+	64	8.9	60	.13	.17	137	113
7 A.M.	5.2	30+	3 -	9.3	60	.08	.13	135	112
8 A.M.	5.1	30+	44	9.4	19	.07	.09	130	110
9 A.M.	5	30+	40	9.4	20	.07	.07	130	110
10 A.M.	5	30+	37	9.2	43	.14	.09	136	110
11 A.M.	5	30+	40	9.5	69	.23	.14	141	110
12 Noon	5.3	30+	40	9.3	94	.31	.22	141	110
1 P.M.	5.2	30+	42	9.2	97	.32	.28	140	110
2 P.M.	5.1	30+	40	9.2	102	.33	.32	139	110
3 P.M.	5.1	30+	43	9.1	95	.31	.32	139	110
4 P.M.	5.2	84	14	9.0	98	.32	.32	139	112
5 P.M.	5.2	84	15	9.0	98	.32	.31	140	110
6 P.M.	5.2	84	20	8.9	101	.33	.32	139	112
7 P.M.	5.2	83	34	8.8	98	.31	.32	142	108
8 P.M.	5.2	38	24	8.7	108	.34	.32	145	112
9 P.M.	5.2	36	29	9.0	82	.27	.30	135	113
10 P.M.	5.0	36	42	9.0	67	.22	.27	132	109
11 P.M.	5.2	36	48	8.9	61	.20	.22	133	108
12 MN.	5.2	30+	100	9.0	100	.20	.20	133	110

12MN-8A.M. SHIFT — B. Liggett

8AM-4P.M. — SEE

4P.M.-12 A.M. — [illegible]

		AVAILABLE	NOT AVAIL.	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	M M.
	520	✓		
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	MM
	520	✓		
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	MM
	520	✓		
	530	✓		

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

PLANT MANAGER: [illegible]

HOURS COMPLIANCE: 9

HOURS NON COMPLIANCE: 15

OPACITY 24

LOW CONCENTRATION AFTER OUTAGE

EPORT

3. BROWN #1

		1. ME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O2	PPM SO2	HOURLY # LBS/MBT	3 HR. AV LBS/MB	STACK T °F	GROSS M.W.	
	1 A.M.	5.1	30+	5.9	8.6	80	.15	.18	131	110		
2nd-8 A.M.	2 A.M.	5.2	30+	6.0	8.6	70	.11	.15	129	108		
	3 A.M.	5.1	30+	6.0	8.6	70	.08	.11	128	110		
SHIFT	4 A.M.	6.0	30+	5.9	8.6	60	.08	.08	128	110		
	5 A.M.	5.6	30+	5.8	8.6	70	.07	.07	128	111		
B. Liggett	6 A.M.	5.8	30+	3.9	8.6	80	.09	.07	128	112		
	7 A.M.	5.6	30+	3.7	8.4	75	.12	.09	130	111		
	8 A.M.	5	30+	3.4	8.5	52	.16	.12	133	110		
	9 A.M.	5.5	30+	3.0	8.4	91	.25	.17	140	110		
A.M.-4 P.M.	10 A.M.	5.5	30+	3.0	8.8	104	.33	.24	141	110		
	11 A.M.	5.5	30+	3.0	8.7	110	.34	.30	139	110		
	12 Noon	6	30+	2.8	8.3	127	.39	.35	142	123		
	1 P.M.	6	30+	2.7	8.4	154	.47	.40	149	122		
	2 P.M.	6	30+	3.8	8.6	119	.37	.40	138	123		
	3 P.M.	6	30+	3.9	8.8	84	.27	.36	132	110		
	4 P.M.	6	30+	3.3	8.5	99	.31	.31	140	114		
	5 P.M.	6	14	3.8	8.6	94	.30	.29	136	110		
12 Mid.-1 A.M.	6 P.M.	6	12	3.9	8.6	78	.25	.28	134	109		
	7 P.M.	6	12	3.8	8.6	69	.22	.25	134	110		
	8 P.M.	5.5	14	3.7	8.6	67	.21	.22	135	110		
	9 P.M.	5.5	14	3.9	8.8	64	.21	.21	135	110		
	10 P.M.	5.2	14	4.1	8.8	63	.20	.20	136	109		
	11 P.M.	5.2	14	3.9	8.9	61	.20	.20	136	109		
	12 MN.	5.4	14.8	3.9	9.6	110	.19	.19	137	110		

DATE: SEP 23 1981

		AVAILABLE	NOT AVAIL.	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	M.M.
	520	✓		
	530	✓		
NORTH SCRUBBER	E			
RECIRC. PUMP	W			
SOUTH SCRUBBER	E			
RECIRC. PUMP	W			
SLAKERS	601			
	602			
	603			
FILTERS	510			
	520			
	530			
NORTH SCRUBBER	E			
RECIRC. PUMP	W			
SOUTH SCRUBBER	E			
RECIRC. PUMP	W			
SLAKERS	601			
	602			
	603			
FILTERS	510			
	520			
	530			

HOURS SURGE TANK OVERFLOWED EACH SHIFT

1

12.8 0

8.4 0

4.12

SEP 23 1981

PLANT MANAGER: BP

HOURS COMPLIANCE: 8

HOURS NON COMPLIANCE: 16

CAPACITY 72%

LOW CONCENTRATION DUE TO OUTAGE

167

REPORT

A.B. BROWN #1

DATE: SEP 24 1981

	TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O2	PPM SO2	HOURLY AV. LBS/MBTU	3 HR. AVG LBS/MBTU	STACK T & F	GROSS M.W.
12 MD - 8 A.M. SHIFT	1 A.M.	6.2	13.8	38	9.1	104	.23	.20	138	111
	2 A.M.	6.2	13.8	28	9.0	105	.23	.21	135	110
	3 A.M.	5.2	13.8	36	9.2	120	.28	.24	139	110
	4 A.M.	5.5	13.8	36	9.0	100	.27	.25	138	111
	5 A.M.	5.0	13.8	35	9.1	102	.23	.25	139	112
	6 A.M.	5.2	13.8	37	8.9	110	.28	.26	140	114
	7 A.M.	5.4	13.5	33	9.0	130	.33	.28	144	112
	8 A.M.	5.3	13.7	33	9.1	122	.39	.33	145	110
8 A.M. - 4 P.M.	9 A.M.	5.3	13.8	34	9.2	134	.44	.38	147	110
	10 A.M.	5.3	13.8	32	9.3	135	.44	.42	141	110
	11 A.M.	5.3	13.8	33	9.3	133	.43	.43	141	110
	12 Noon	5.2	13.7	34	9.2	128	.42	.42	141	108
	1 P.M.	5.0	13.7	39	8.3	131	.42	.42	142	160
	2 P.M.	5.2	13.7	36	6.9	106	.29	.37	145	182
	3 P.M.	5.1	13.5	53	8.9	89	.25	.32	140	145
	4 P.M.	5.0	13.5	42	7.3	86	.24	.26	141	152
	5 P.M.	5.1	13.5	37	7.0	115	.32	.27	148	163
4 P.M. - 12 MN.	6 P.M.	5.0	13.5	48	7.9	81	.24	.21	140	140
	7 P.M.	5.0	13.5	48	7.7	70	.21	.25	139	147
	8 P.M.	5.2	13.5	46	7.8	74	.21	.21	142	161
	9 P.M.	5.2	13.8	48	6.8	79	.22	.20	143	176
	10 P.M.	5.0	13.6	55	8.2	57	.17	.19	136	121
	11 P.M.	5.0	13.6	41	8.5	89	.28	.22	140	110
	12 MN.	5.5	1.4	35.2	8.7	72.2	.23	.22	145	110

		AVAILABLE	NOT AVAILABLE	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	
	520	✓		
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	
	520	✓		
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	
	520	✓		
	530	✓		

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

267

PLANT MANAGER: BP

HOURS COMPLIANCE: 15

HOURS NON COMPLIANCE: 9

OPACITY 2Y

PH MONITOR MALFUNCTION

168

EPORT

3. Brown #1

2nd-8 A.M

SHIFT

NE

6

A.M-4 P.M.

WCP

Jr.

Mfm

	TIME	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack Opacity	% O_2	PPM SO_2	Hourly Av. LBS/MBTU	3 Hr. Av. LBS/MBTU	Stack T	P/ Gross M.W.
1 A.M.	5.2	14	38	8.9	68	.23	.24	141	106
2 A.M.	5.0	14	43	9.0	40	.13	.19	133	104
3 A.M.	5.0	14	37	8.5	39	.13	.16	133	111
4 A.M.	5.8	14	38	8.6	42	.14	.13	133	111
5 A.M.	5.6	14	37	8.6	39	.13	.13	133	110
6 A.M.	5.2	14	38	8.6	40	.13	.12	132	110
7 A.M.	5.5	14	37	8.5	37	.12	.12	132	111
8 A.M.	5.3	13.9	34	7.4	43	.13	.12	135	138
9 A.M.	5.3	14	31	6.9	62	.17	.13	139	140
10 A.M.	5.2	14	37	8.5	50	.15	.14	135	112
11 A.M.	5.2	14	33	7.8	47	.14	.15	136	133
12 Noon	5.2	13.8	36	8.4	61	.18	.15	140	122
1 P.M.	5	13.8	39	8.7	52	.16	.16	137	110
2 P.M.	4.9	13.7	38	8.5	75	.20	.11	135	110
3 P.M.	5	13.8	38	8.5	37	.12	.09	135	110
4 P.M.	5.0	13.9	40	8.2	40	.12	.07	135	109
5 P.M.	5.0	13.9	41	8.3	37	.11	.11	136	109
6 P.M.	4.9	13.9	41	7.9	29	.09	.10	136	118
7 P.M.	4.9	13.8	39	7.6	37	.11	.10	139	129
8 P.M.	30+	14	39	7.6	44	.12	.10	141	129
9 P.M.	0.2	13.9	41	7.7	36	.11	.11	139	126
10 P.M.	0.2	14	48	8.2	38	.12	.11	137	118
11 P.M.	0	14	51	8.1	29	.09	.10	136	110
12 MN.	5.2	14	53	8.3	24	.08	.09	136	111

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

24

HOURS COMPLIANCE: 24

HOURS NON COMPLIANCE: 0

PLANT MANAGER: BP

DATE: SEP 1981

		Available	Not Avail.	Remarks
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E	✓		
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓	✓	
Filters	510		✓	MM
	520	✓		
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E	✓		
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510		✓	MM
	520	✓		
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E	✓		
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510		✓	
	520	✓		
	530	✓		

REPORT - J.B. Brown #1

DATE: SEP 26 1981

	TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O_2	PPM SO_2	HOURLY Avg LBS/MBTU	3 HR. Avg LBS/MBTU	STACK T_1	GROSS M.W.
12 mdt - 8 a.m.	1 A.M.	5.2	14	53	8.6	27	.09	.08	136	112
	2 A.M.	5.5	14	48	8.8	25	.08	.09	135	108
SHIFT	3 A.M.	5.5	14	44	8.7	25	.08	.08	135	110
	4 A.M.	6.5	14	48	8.7	21	.07	.07	135	113
E	5 A.M.	5.2	14	43	8.6	20	.07	.07	135	113
	6 A.M.	5.0	14	53	8.6	18	.07	.06	134	107
	7 A.M.	5.0	14	55	8.4	17	.06	.06	134	115
	8 A.M.	5.0	14	50	8.6	23	.07	.06	134	113
	9 A.M.	5.0	14	51	8.6	21	.07	.06	134	110
8 AM - 4 P.M.	10 A.M.	5.0	14	52	8.6	25	.08	.07	134	110
	11 A.M.	5.0	14	52	8.6	22	.07	.07	135	110
	12 Noon	5.0	14	52	8.6	20	.07	.07	135	112
	1 P.M.	5.0	14	55	8.4	19	.06	.06	135	113
	2 P.M.	5.0	N/A	53	8.4	20	.06	.06	135	110
	3 P.M.	5.0	N/A	53	8.4	17	.06	.06	136	110
	4 P.M.	4.4	30+	55	8.0	18	.06	.05	136	112
	5 P.M.	4.8	30+	54	8.0	18	.06	.05	136	111
4 p.m. - 12 mdt.	6 P.M.	4.8	30+	55	8.0	16	.05	.05	136	111
	7 P.M.	4.8	30+	53	8.1	12	.04	.04	137	112
	8 P.M.	4.8	30+	55	8.1	14	.05	.04	137	110
	9 P.M.	5.0	30+	53	8.2	15	.05	.04	137	112
	10 P.M.	5.0	30	54	8.2	39	0.9	.06	136	109
	11 P.M.	5.0	30+	55	8.2	36	.11	.08	136	112
	12 MN.	5.2	100	55	8.4	17	.06	.08	136	112

		AVAILABLE	NOT AVAIL.	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	NOT IN
	520	✓		
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	
	520	✓		
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	
	520	✓		
	530	✓		

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 _____

8-4 0

4-12 0

PLANT MANAGER: RP

HOURS COMPLIANCE: 24

HOURS NON COMPLIANCE: 0

MISSION
PORT
P. Brown #1

	T.	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack % O_2	PPM	SO_2 Hourly Avg	LBS/MBTU 3 Hr. Avg.	LBS/MBTU Stack	Te	Gross M.W.
	1 A.M.	5.0	NA	55	8.4	10	.03	.06	136	117
Mid-8 A.M.	2 A.M.	5.0	NA	56	8.5	7	.03	.03	136	111
	3 A.M.	2.6	NA	50	8.5	15	.05	.03	136	113
SHIFT	4 A.M.	4.8	1.0	48	8.7	18	.06	.04	135	110
	5 A.M.	5.2	11.	51	8.5	15	.05	.05	136	110
JE	6 A.M.	5.2	38	47	8.5	19	.07	.05	135	113
1	7 A.M.	5.0	36	53	8.4	17	.06	.05	135	112
	8 A.M.	5.0	36	57	8.6	21	.07	.06	135	110
	9 A.M.	5.0	36	55	8.6	22	.07	.06	134	112
8 A.M.-4 P.M.	10 A.M.	5.0	36	55	8.6	22	.07	.07	133	116
	11 A.M.	5.0	36	56	8.5	24	.08	.07	133	111
	12 Noon	5.0	36	57	8.5	20	.07	.07	133	113
	1 P.M.	5.0	36	54	8.4	17	.06	.06	133	110
B. Liggett	2 P.M.	5.0	36	44	8.4	29	.09	.07	134	110
	3 P.M.	5.0	36	49	8.4	30	.09	.07	135	111
	4 P.M.	5.0	11.0	48	8.2	32	.10	.09	135	114
	5 P.M.	5.0	10.8	49	8.2	29	.09	.09	135	111
4 P.M.-12 MN.	6 P.M.	4.9	10.8	48	8.1	32	.10	.09	136	112
	7 P.M.	4.9	10.8	47	8.1	35	.11	.09	136	119
	8 P.M.	5.0	10.8	49	8.2	34	.11	.10	136	111
	9 P.M.	5.0	11.0	50	8.3	37	.12	.10	136	110
Hale	10 P.M.	5.0	11.0	48	8.3	34	.11	.10	136	110
	11 P.M.	4.9	10.8	46	8.4	30	.09	.10	135	109
	12 MN.	4.2	3.6	49	8.5	35	.08	.09	135	111

		Available	Not Avail.	Remarks
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E	✓		
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510		✓	
	520	✓		
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E	✓		
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510		✓	m.m.
	520	✓		
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E	✓		
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510		✓	
	520	✓		

Date: SEP 27 1981

Hours Surge Tank Overflowed Each Shift

12-8 0

8-4 0

4-12 0

Plant Manager: [illegible]

Hours Compliance: 24

Hours Non Compliance: 0

SEP 27 1981

	Load (MW)	Accen Flow %	P.H. Required	Compliance	Avg. P.H.	North P.H.	South P.H.	SO2 Scrubber Control Valve Set Point	SO2 Control Valve (✓) Auto	SO2 Control Valve (✓) Man	ASH Control Valve Set Point	(✓) If On 601	602	603	Tank Level %	Mod Dam Position	Mod Damper Position	Stack Temp
12:00 A.M.	110	30				6.5	6.5	100		✓	100				37	40	40	135
1:00 A.M.	110	29				6.5	6.5	100		✓	100	✓			39	40	40	135
2:00 A.M.	114	34				6.5	6.5	100		✓	100	✓			38	40	40	134
3:00 A.M.	111	34				6.5	6.5	100		✓	100	✓			38	40	40	134
4:00 A.M.	113	36				6.5	6.5	100		✓	100	✓			40	40	40	133
5:00 A.M.	111	30				6.5	6.5	100		✓	100	✓			40	40	40	133
6:00 A.M.	111	36				6.5	6.5	100		✓	100	✓			36	35	35	135
7:00 A.M.	112	33				6.5	6.5	100		✓	100	✓			40	40	40	134
8:00 A.M.	110	40				6.5	6.5	100		✓	100			✓	40	40	40	133
9:00 A.M.	116	43				6.5	6.5	100		✓	100			✓	50	50	46	133
10:00 A.M.	132	44				6.5	6.5	100		✓	100			✓	36	40	40	131
11:00 A.M.	130	27				6.5	6.5	100		✓	100			✓	46	35	35	145
12:00 P.M.	128	40				6.5	6.5	100		✓	100			✓	38	40	40	131
1:00 P.M.																		
2:00 P.M.																		
3:00 P.M.																		
4:00 P.M.																		
5:00 P.M.																		
6:00 P.M.																		
7:00 P.M.																		
8:00 P.M.																		
9:00 P.M.																		
10:00 P.M.																		
11:00 P.M.																		
12:00 P.M.																		

12-8 [signature]

8-4 [signature]

Remarks: EXERC. MOD DAMPERS & SO2 & ASH REG 10:00 AM 10:30 AM

SEP 28 1981

172

Brown #1

	1 Min Duct	Opacity Duct	Opacity Stac	Opacity Stac	% O	PPMS	Hourly	Lbs/MM BTU 3 HR.	Lbs/MM BTU	Stack Temp	Gross MW
1 A.M.	5.2	NA	50	8.8	36	.12	.11	134	106		
2 A.M.	5.2	NA	47	9.1	49	.16	.12	135	108		
3 A.M.	5.5	NA	46	9.1	59	.19	.15	135	108		
4 A.M.	5.2	38	46	9.2	69	.23	.19	137	108		
5 A.M.	5.5	38	46	9.2	75	.25	.22	137	109		
6 A.M.	5.2	18	45	9.1	75	.25	.24	136	110		
7 A.M.	5.2	14.5	46	9.2	68	.23	.23	135	105		
8 A.M.	5.2	14.6	45	9.4	67	.22	.23	133	108		
9 A.M.	5.2	14.8	47	8.6	66	.21	.22	135	118		
10 A.M.	6.0	18.0	31	4.0	94	.25	.22	143	187		
11 A.M.	5.8	15.5	40	6.4	99	.25	.23	145	298		
12 Noon	5.2	15.0	46	7.6	74	.21	.23	142	187		
1 P.M.	5.0	15.0	52	7.7	72	.21	.22	139	170		
2 P.M.	4.8	14.8	45	7.6	55	.16	.19	135	158		
3 P.M.	5.0	14.8	53	7.6	45	.13	.16	134	153		
4 P.M.	4.8	30+	56	8.4	37	.12	.13	133	129		
5 P.M.	4.8	30+	55	8.8	31	.10	.11	132	110		
6 P.M.	4.8	30+	50	8.7	30	.10	.10	134	109		
7 P.M.	4.9	30+	50	8.7	30	.10	.10	134	109		
8 P.M.	4.8	30+	46	8.6	31	.10	.10	134	115		
9 P.M.	5.0	30+	46	8.8	27	.09	.09	134	111		
10 P.M.	5.0	30+	48	8.7	27	.09	.09	134	111		
11 P.M.	5.0	30+	49	8.8	23	.08	.08	134	109		
12 MN.	3.9	NA	50	9.0	22	.07	.07	134	113		

SHIFT

12-8 A.M.

8-4 P.M.

4-12 P.M.

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

HOURS COMPLIANCE: 24

HOURS NON COMPLIANCE: 0

PLANT MANAGER: BP

SEP 29 1981

SEP 29 1981

REMARKS

		Avail.	Not Avail.	
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E	✓		
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510			
	520	✓		
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E	✓		
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510		✓	m.m.
	520	✓		
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E	✓		
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510		✓	m.m.
	520	✓		
	530	✓		

MISSION

PORT

BROWN #1

DATE: SEP 30 1981

	TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK OPACITY	% O2	PPM SO2	HOURLY AVG LBS/MBTU	3 HR. AVG. LBS/MBTU	STACK TE	GROSS M.W.
	1 A.M.	5.0	NA	49	8.9	24	.08	.07	134	109	
	2 A.M.	5.0	NA	50	8.7	24	.08	.07	133	106	
	3 A.M.	5.2	NA	48	8.6	24	.08	.07	133	110	
	4 A.M.	5.0	NA	49	8.9	24	.08	.08	133	110	
	5 A.M.	5.2	16.2	48	9.0	24	.08	.08	133	107	
	6 A.M.	5.2	14.9	47	8.9	21	.07	.07	132	110	
	7 A.M.	5	17	40	8.8	36	.12	.08	138	108	
	8 A.M.	5	17	42	9.0	39	.13	.10	136	108	
	9 A.M.	5	15	43	8.7	33	.11	.11	134	110	
	10 A.M.	5	15	42	7.8	37	.11	.11	137	128	
	11 A.M.	5	15	48	8.0	38	.11	.11	137	146	
	12 Noon	5	15	34	6.4	59	.16	.12	146	180	
	1 P.M.	4.8	16	34	4.6	81	.20	.15	148	200	
	2 P.M.	4.8	NA	40	5.1	100	.24	.19	152	230	
	3 P.M.	5.0	NA	36	3.4	69	.16	.19	144	238	
	4 P.M.	4.7	—	23	6.0	56	.15	.19	144	175	
	5 P.M.	4.7	—	42	6.6	109	.29	.20	162	183	
	6 P.M.	4.7	—	40	6.1	79	.21	.21	147	195	
	7 P.M.	4.8	—	39	5.8	63	.16	.22	144	200	
	8 P.M.	4.7	—	35	5.0	80	.20	.19	147	210	
	9 P.M.	5.0	—	39	6.0	67	.17	.17	144	175	
	10 P.M.	5.0	—	56	7.1	62	.15	.17	140	150	
	11 P.M.	5	—	64	8.5	33	.10	.14	137	113	
	12 MN.	5.0	N/A	61	8.5	27	.09	.11	136	112	

		AVAILABLE	NOT AVAIL.	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	MM
	520	✓		
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	MM
	520	✓		
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	MM
	520	✓		

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

HOURS COMPLIANCE: 24

HOURS NON COMPLIANCE: 0

OPACITY .24

PLANT MANAGER: PP

12-8 NE

8-4 OH

4-12 OH

174

REPORT

OCT 1 1981

J.B. Brown #1

	TIME	Duct Opacity	Duct Opacity	Stack Opacity	Stack Opacity	% O	PPM SO	Hourly	LBS/MBTU 3 HR.	LBS/HR Stack	Stack Gas Mol Wt
	1 A.M.	5.0	NA	51	8.5	24	.08	.08	136	109
12 mid - 8 a.m.	2 A.M.	5.0	NA	51	8.7	33	.11	.09	136	107
	3 A.M.	4.9	38	50	8.6	34	.11	.09	136	107
SHIFT	4 A.M.	4.9	38	50	8.7	39	.13	.11	136	109
	5 A.M.	5.2	38	52	8.6	34	.11	.11	136	108
DE	6 A.M.	5.2	38	49	8.5	31	.10	.11	136	112
	7 A.M.	5.5	38	52	8.5	27	.09	.10	136	110
V	8 A.M.	5.4	37	31	4.9	37	.11	.09	140	118
	9 A.M.	5.2	37	41	7.0	56	.14	.11	145	193
8 AM - 4 P.M.	10 A.M.	5.2	37	41	6.4	25	.10	.11	137	162
	11 A.M.	5.2	18	51	7.4	30	.08	.10	137	163
	12 Noon	5.2	15	44	6.4	29	.08	.08	136	175
N/A	1 P.M.	5.5	15.8	34	6.2	40	.11	.09	140	175
	2 P.M.	5.4	15.8	41	6.6	70	.19	.12	141	175
	3 P.M.	5.3	36	44	6.6	57	.16	.15	138	165
	4 P.M.	5.2	18	50	7.1	41	.12	.15	135	155
	5 P.M.	5.2	17	52	7.5	33	.10	.12	136	145
4 p.m. - 12 a.m.	6 P.M.	5.2	17	51	7.2	32	.10	.10	135	150
	7 P.M.	5.2	17	38	7.0	42	.12	.10	139	150
	8 P.M.	5.3	17	39	7.1	78	.21	.13	143	147
OH	9 P.M.	5.2	17	37	7.0	90	.25	.17	143	145
	10 P.M.	5.2	16	48	8.1	17	.04	.04	141	110
	11 P.M.	5.2	17	42	8.3	52	.16	.11	135	109
	12 MN.	5.0	17	46	8.3	57	.18	.13	133	108

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

PLANT MANAGER: BP

HOURS COMPLIANCE: 24

HOURS NON COMPLIANCE: 0

OPACITY .24

		Avail.	Not Avail.	
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	N.M
	520	✓		
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	N.M
	520	✓		
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	N.M.
	520	✓		
	530	✓		

ISSION
PORT
BROWN #1

DATE: OCT 02 1981

TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O2	PPM SO2	HOURLY AVG LBS/MBTU	3 HR. AVG. LBS/MBTU	STACK TEMP	GAS FLOW M.W.
1 A.M.	5.2	5.2	4.9	7.3	50	.15	.16	132	108
2 A.M.	5.2	5.2	5.1	7.4	56	.17	.16	131	107
3 A.M.	5.2	5.2	4.5	8.6	52	.17	.16	131	109
4 A.M.	5.2	5.0	4.2	8.6	51	.16	.16	131	104
5 A.M.	5.4	5.2	4.2	8.5	52	.17	.16	132	107
6 A.M.	5.2	5.2	4.1	8.5	75	.23	.18	133	111
7 A.M.	6.2	5.2	4.3	9.1	95	.30	.23	133	109
8 A.M.	6.2	16	4.3	8.8	100	.31	.27	133	111
9 A.M.	6.3	16	4.4	8.8	100	.31	.31	133	114
10 A.M.	6.4	16	4.2	8.6	110	.36	.33	134	115
11 A.M.	6.4	16	4.2	8.8	135	.41	.36	136	118
12 NOON	6.3	16	4.5	8.9	131	.41	.39	135	112
1 P.M.	6.3	16	4.0	8.9	123	.39	.40	134	111
2 P.M.	6.3	16	4.4	9.0	140	.40	.41	138	117
3 P.M.	6.3	16	4.5	8.8	123	.39	.40	136	112
4 P.M.	5.7	16	4.6	9.0	119	.36	.40	136	110
5 P.M.	5.5	16	4.6	9.1	126	.40	.38	136	110
6 P.M.	5.7	16	4.1	8.9	135	.43	.39	137	115
7 P.M.	5.7	17	4.1	8.8	141	.45	.42	141	117
8 P.M.	5.8	17	4.0	9.1	143	.44	.44	142	122
9 P.M.	5.3	17	4.4	9.0	133	.42	.44	142	115
10 P.M.	5.2	16	3.4	8.9	131	.42	.43	141	115
11 P.M.	5.3	16	4.6	9.2	149	.47	.43	140	110
12 MID.	5.2	16	4.3	8.6	163	.52	.47	150	113

12-8 A.M.

11 FT

L

8 A.M. - 4 P.M.

3 Laggitt

RL

4 P.M. - 12 MID.

X

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

PLANT MANAGER: BP

HOURS COMPLIANCE: 24

HOURS NON COMPLIANCE: 0

OPACITY 24

		AVAILABLE	OUT OF ORDER	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	M.M.
	520			
	530			
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	M.M.
	520	✓		
	530			
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601			
	602			
	603			
FILTERS	510		✓	
	520	✓		

EPORT

J. BROWN #1

TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O2	PPM SO2	HOURLY # LBS/MBTU	3 HR. AV. LBS/MBTU	STACK T	18 GROSS M.W.
1 A.M.	5.8	5.2	37	7.5	370	1.07	.68	203	110
2 A.M.	5.8	5.2	37	7.4	384	1.10	89	206	114
3 A.M.	5.8	5.2	37	7.5	403	1.16	1.10	221	110
4 A.M.	5.8	5.2	34	8.0	352	1.06	1.10	191	114
5 A.M.	5.5	5.2	21	9.8	128	.10	.93	146	112
6 A.M.	5.5	5.2	35	8.8	172	.55	.73	142	116
7 A.M.	6.4	5.2	38	8.8	160	.51	.55	140	121
8 A.M.	7.0	15.2	31	8.3	150	.47	.50	139	127
9 A.M.	6.5	15.2	45	9.2	177	.54	.50	145	135
10 A.M.	6.5	15.2	49	9.4	98	.32	.44	134	111
11 A.M.	6.6	15.2	46	9.4	94	.31	.38	132	113
12 Noon	6.4	15.2	46	9.4	99	.32	.31	135	113
1 P.M.	6.4	15.0	46	9.2	108	.35	.32	136	112
2 P.M.	5.2	15.2	46	9.0	103	.33	.33	135	112
3 P.M.	5.2	15.2	47	9.1	106	.34	.33	135	112
4 P.M.	5.2	15.2	44	9	101	.32	.33	136	112
5 P.M.	5.2	15.	47	9	101	.32	.32	136	112
6 P.M.	5.2	15	47	8.8	100	.32	.21	136	115
7 P.M.	5	15	41	8.7	11	.03	.10	137	116
8 P.M.	5.2	15.2	42	8.5	100	.30	.21	137	120
9 P.M.	5.2	14.8	44	8.8	106	.33	.21	138	115
10 P.M.	5.5	12.2	50	8.7	70	.22	.21	136	110
11 P.M.	5.5	11.2	49	8.5	72	.21	.0	135	113
12 MN.	5.5	12.5	48	8.4	99	.31	.29	135	116

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

PLANT MANAGER: P.P

HOURS COMPLIANCE: 20

HOURS NON COMPLIANCE: 4

OPACITY . 24

"LIME" TRANSFER LINE LINE PLUGGED WITH ROCK.

OCT 03 1981

		AVAILABLE	NOT AVAIL	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	
	520	✓		
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	
	520	✓		
	530	✓		
NORTH SCRUBBER	E			
RECIRC. PUMP	W			
SOUTH SCRUBBER	E			
RECIRC. PUMP	W			
SLAKERS	601			
	602			
	603			
FILTERS	510		✓	
	520	✓		
	530	✓		

177

ISSION
PORT
BROWN #1

DATE: OCT 04 1981

TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O2	PPM SO2	HOURLY AVG	LBS/MBTU 3 HR. AVG.	LBS/MBTU STACK	STACK TEMP	GROSS M.W.
1 A.M.	5.8	5.0	49	8.4	92	.29	.29	135	113	
2 A.M.	5.8	5.2	50	8.5	96	.30	.29	134	115	
3 A.M.	5.8	5.0	51	8.5	91	.29	.29	134	115	
4 A.M.	5.8	5.0	51	8.5	94	.29	.29	133	111	
5 A.M.	5.8	5.0	51	8.5	93	.29	.28	133	112	
6 A.M.	5.8	5.0	52	8.5	89	.28	.28	132	112	
7 A.M.	5.8	5.0	47	8.4	110	.34	.30	137	112	
8 A.M.	7.2	15	50	8.7	119	.37	.33	138	110	
9 A.M.	6.1	15.5	54	8.9	94	.30	.33	132	110	
10 A.M.	6.0	15.5	54	8.8	81	.25	.30	130	110	
11 A.M.	5.8	15.5	54	8.3	132	.40	.31	150	115	
12 NOON	5.5	15.5	52	9.0	112	.36	.33	136	113	
1 P.M.	5.5	15.5	52	8.8	101	.32	.35	135	111	
2 P.M.	5	15	53	8.7	83	.26	.31	134	111	
3 P.M.	5.2	15.2	53	8.8	93	.29	.28	136	110	
4 P.M.	5	15	52	8.6	88	.28	.27	137	112	
5 P.M.	5	14	52	8.6	72	.23	.26	137	113	
6 P.M.	5	14	52	8.6	81	.26	.25	138	113	
7 P.M.	5	14	51	8.6	85	.27	.25	138	112	
8 P.M.	5	14	53	8.7	88	.27	.27	138	113	
9 P.M.	5	20+	50	9.7	91	.28	.27	137	114	
10 P.M.										
11 P.M.										
12 MN.	5.0	20+	58	7.4	58	.18	.21	134	112	

		AVAILABLE	NOT AVAILABLE	REMARKS
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	M M
	520	✓		
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	M M
	520	✓		
	530	✓		
NORTH SCRUBBER	E			
RECIRC. PUMP	W			
SOUTH SCRUBBER	E			
RECIRC. PUMP	W			
SLAKERS	601			
	602			
	603			
FILTERS	510		✓	M M
	520			

HOURS SURGE TANK OVERFLOWED EACH SHIFT
12-8 0.
8-4
4-12

HOURS COMPLIANCE: 24
HOURS NON COMPLIANCE: 0
OPACITY

PLANT MANAGER: [illegible]

178

MISSION REPORT

B. Brown #1

Time	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack % O_2	PPM SO_2	Hourly Avg	Lbs/MBTU 3 Hr. Avg.	Lbs/MBTU Stack	TE	Gross M.W.
1 A.M.	5.2	30+	58	8.4	52	.16	.18	133	113	
2 A.M.	5.2	30+	57	8.4	48	.15	.16	134	111	
3 A.M.	5.2	30+	51	8.4	50	.16	.15	135	111	
4 A.M.	5.2	30+	48	8.4	55	.17	.15	137	111	
5 A.M.	5.4	30+	45	8.4	46	.14	.15	136	111	
6 A.M.	5.4	30+	37	8.3	45	.14	.15	137	113	
7 A.M.	5.2	30+	44	8.3	61	.19	.15	137	116	
8 A.M.	5.2	38	49	8.6	60	.19	.17	135	110	
9 A.M.	5.2	37	56	8.5	63	.20	.19	138	120	
10 A.M.	5.8	38	49	7.6	81	.23	.20	145	152	
11 A.M.	5.8	38	51	6.6	75	.20	.21	140	168	
12 Noon	5.5	38	47	6.6	72	.19	.20	144	186	
1 P.M.	7.0	38	47	6.1	75	.20	.19	147	193	
2 P.M.	6.2	38	46	5.1	93	.23	.20	150	213	
3 P.M.	6.2	37	47	5.0	71	.17	.19	145	218	
4 P.M.	6.2	30+	44	5.6	73	.18	.19	149	218	
5 P.M.	6.2	30+	51	5.8	90	.23	.19	158	225	
6 P.M.	6	30+	63	6.4	83	.21	.20	154	215	
7 P.M.	6	30+	62	6	55	.15	.19	146	225	
8 P.M.	6	30+	63	6	42	.11	.15	144	225	
9 P.M.	6	30+	66	6.4	31	.08	.11	141	215	
10 P.M.	5.7	30+	68	8.2	22	.06	.08	143	130	
11 P.M.	5.7	30+	60	8.7	19	.06	.06	142	110	
12 MN.	5.2	30+	45	8.5	22	.07	.06	141	108	

8 A.M. – 4 P.M.

4 P.M. – 12 MN.

12 MN. – 8 A.M.

SHIFT

Hours Surge Tank Overflowed Each Shift

12-8 0

8-4 0

4-12 0

Plant Manager: BP

Hours Compliance: 24

Hours Non-Compliance: 0

Opacity .24

DATE: OCT 05 1981

		Available	Not Avail.	Remarks
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E	✓		
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603		✓	M.M
Filters	510		✓	M.M
	520		✓	M.M
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E	✓		
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510		✓	MM
	520	✓		
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E	✓		
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510		✓	MM
	520	✓		
	530	✓		

179

EPORT

B. Brown #1

	TIME	Duct #2 Opacity	Duct #1 Opacity	Stack Opacity	Stack % O_2	PPM SO_2	Hourly Av LBS/MBTU	3 Hr. Ave LBS/MBTU	Stack Temp	Gross M.W.
	1 A.M.	5.2	30+	59	8.1	27	.08	.07	144	111
2nd-8 A.M.	2 A.M.	5.2	30+	57	8.0	37	.11	.08	146	119
	3 A.M.	5.2	30+	68	8.1	37	.11	.10	143	115
SHIFT	4 A.M.	5.2	30+	33	8.2	33	.10	.10	142	116
	5 A.M.	5.4	30+	60	8.2	32	.10	.10	142	115
	6 A.M.	5.4	30+	58	8.2	31	.10	.09	142	114
	7 A.M.	5.4	30+	52	8.0	31	.09	.09	142	123
	8 A.M.	5.5	NA	66	8.1	26	.08	.09	140	128
	9 A.M.	5.8	NA	64	6.9	27	.08	.08	141	157
A.M.-4 P.M.	10 A.M.	5.9	NA	61	7.3	30	.09	.08	141	154
	11 A.M.	5.9	NA	62	6.9	45	.13	.09	145	170
	12 Noon	5.8	NA	60	6.9	58	.16	.12	143	176
	1 P.M.	5.5	17	63	7.6	32	.10	.12	135	156
JE	2 P.M.	5.9	17.2	62	7.4	26	.08	.11	136	168
	3 P.M.	5.9	17.8	52	7.2	26	.08	.08	137	165
	4 P.M.	5.7	17.2	59	8.7	22	.07	.07	136	138
	5 P.M.	5.6	30+	60	8.8	13	.05	.06	134	133
4 P.M.-12 MN.	6 P.M.	5.7	30+	51	9.2	11	.04	.05	133	120
	7 P.M.	5.7	30+	38	8.5	23	.08	.05	140	132
JPE SH	8 P.M.	5.8	30+	50	8.8	38	.12	.09	137	130
	9 P.M.	5.8	30+	54	8.8	21	.07	.09	134	130
	10 P.M.	5.3	30+	51	9.2	19	.06	.08	133	117
	11 P.M.	5.8	30+	41	8.8	38	.12	.02	142	127
	12 MN.	5.8	33	42	9.5	68	.21	.13	143	122

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

HOURS COMPLIANCE: 24

HOURS NON COMPLIANCE: 0

OPACITY: 24

PLANT MANAGER: BP

OCT 06 1981

Date:

		Available	Not Available	Remarks
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E	✓		
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510		✓	MM
	520	✓		
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E	✓		
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510		✓	MM
	520	✓		
	530	✓		
North Scrubber	E	✓		
Recirc. Pump	W	✓		
South Scrubber	E	✓		
Recirc. Pump	W	✓		
Slakers	601	✓		
	602	✓		
	603	✓		
Filters	510		✓	
	520	✓		
	530	✓		

REPORT

A.B. Brown #1.

TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O_2	PPM SO_2	HOURLY A LBS/MBTU	3 HR. AVG LBS/MBTU	STACK T. °F	GROSS M.W.
1 A.M.	5.9	30+	48	8.7	62	.20	.17	136	124
2 A.M.	5.8	30+	53	8.8	44	.14	.18	132	117
3 A.M.	5.8	30+	56	8.8	36	.12	.15	132	116
4 A.M.	5.5	30+	55	8.7	34	.11	.12	131	114
5 A.M.	5.5	30+	55	8.7	28	.09	.10	130	117
6 A.M.	5.5	30+	42	8.5	39	.12	.10	134	116
7 A.M.	5.8	30+	30	9.4	60	.19	.13	138	129
8 A.M.	6.2	NA	66	8.7	62	.20	.16	135	118
9 A.M.	6.0	18	57	9.0	67	.22	.19	136	115
10 A.M.	8.0	19	48	9.2	69	.23	.21	132	119
11 A.M.	6.0	17.5	46	9.0	73	.24	.22	135	119
12 Noon	6.2	18	64	7.8	61	.18	.21	133	157
1 P.M.	6.2	18	67	7.0	35	.09	.16	129	177
2 P.M.	6.0	18	63	6.8	41	.11	.12	134	178
3 P.M.	5.8	17.5	44	7.8	57	.16	.12	136	178
4 P.M.	5.6	17	60	7.7	46	.13	.13	133	158
5 P.M.	5.5	17	54	7.4	30	.09	.12	131	147
6 P.M.	5.5	17	28	8.2	34	.09	.10	134	150
7 P.M.	5.5	17	28	5.6	67	.20	.12	142	139
8 P.M.	6.4	23	30	3.6	92	.21	.16	145	252
9 P.M.	6.7	27	30	3.4	90	.20	.19	144	261
10 P.M.	6.5	22	30	4.0	100	.22	.20	145	260
11 P.M.	6.0	22	28	4.2	[illegible]	.24	.21	145	255
12 MN.	6.10	1.8	32	5.0	108	.25	.23	143	226

12MD-8A.M. SHIFT — N. Wm

8A.M.-4P.M. — J. E

4P.M.-12 MN. — B. Griffith

OCT 07 1981

		AVAILABLE	NOT AVAIL	REMARKS
NORTH SCRUBBER	E		✓	M. ~
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	~ ~
	520	✓		
	530	✓		
NORTH SCRUBBER	E		✓	M M
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	M M
	520	✓		
	530	✓		
NORTH SCRUBBER	E		✓	M.M.
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	M.M.
	520	✓		
	530	✓		

DATE: _____

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

PLANT MANAGER: BP

HOURS COMPLIANCE: 24

HOURS NON COMPLIANCE: 0

OPACITY 24

REPORT

A.B. Brown #1

TIME	DUCT #2 OPACITY	DUCT #1 OPACITY	STACK OPACITY	STACK % O_2	PPM SO_2	HOURLY AV. LBS/MBTU	3 HR. AVG. LBS/MBTU	STACK T. F.	GROSS M.W.
1 A.M.	5.8	17.5	5.[illegible]	7.6	[illegible]	.16	.21	131	147
2 A.M.	5.8	17.5	48	7.3	64	.18	.19	137	147
3 A.M.	5.9	17.5	64	7.4	49	.12	.15	129	150
4 A.M.	5.5	17.2	62	7.4	38	.08	.12	127	150
5 A.M.	5.8	18	44	7.1	32	.09	.09	131	150
6 A.M.	6.6	18.4	33	6.8	52	.14	.10	136	161
7 A.M.	6.8	20	28	5.7	76	.19	.14	142	200
8 A.M.	7.5	32	30	4.9	112	.27	.20	148	245
9 A.M.	7.2	19	31	5.0	110	NA	.24	144	241
10 A.M.	7.5	23	32	4.9	144	.34	.28	154	255
11 A.M.	7.0	19	36	4.7	NA	NA	.30	156	255
12 Noon	7.0	19	38	5.2	104	.25	.30	141	242
1 P.M.	7.0	19	41	5.1	85	.20	.27	139	240
2 P.M.	6.5	19.2	35	4.8	119	NA	.24	149	243
3 P.M.	6	19	28	NA	141	NA	.27	152	241
4 P.M.	5.8	20	38	4.6	225	.50	.30	183	244
5 P.M.	5.5	18	28	4.4	115	.27	.36	144	226
6 P.M.	5.5	22	40	4.6	143	.24	.36	154	232
7 P.M.	6.0	22	36	4.1	129	.29	.29	147	250
8 P.M.	6.1	20	32	4.6	120	.29	.30	147	250
9 P.M.	6.0	21	33	4.3	129	.30	.29	148	253
10 P.M.	6.4	23	33	4.4	129	.30	.29	147	252
11 P.M.	6.5	19	36	5.0	121	.28	.29	147	245
12 MN.	5.7	19.2	5[illegible]	4.5	[illegible]	.24	.27	136	[illegible]

12 Mid - 8 AM — Shift — Nicks

8 AM - 4 P.M. — English

4 P.M. - 12 Mid. — R Piggott

DATE: OCT 08 1981

		AVAILABLE	NOT AVAILABLE	REMARKS
NORTH SCRUBBER	E			M.M.
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	M.M.
	520	✓		
	530	✓		
NORTH SCRUBBER	E		✓	MM
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	MM
	520	✓		
	530	✓		
NORTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SOUTH SCRUBBER	E	✓		
RECIRC. PUMP	W	✓		
SLAKERS	601	✓		
	602	✓		
	603	✓		
FILTERS	510		✓	M.M.
	520	✓		
	530	✓		

HOURS SURGE TANK OVERFLOWED EACH SHIFT

12-8 0

8-4 0

4-12 0

HOURS COMPLIANCE:

HOURS NON COMPLIANCE:

PLANT MANAGER:

TABLE 70

Scrubber Operating Logs

July 31 to October 9, 1981

-	Gross Load (MW)	Regen Flow %	Office Use Only: P.H. Required	Office Use Only: Confirmed	Office Use Only: Avg. P.H.	North P.H.	South P.H.	North Soda Ash Control Valve Set Point	South Ash Control Valve (✓) Auto	South Ash Control Valve (✓) Man	South Soda Ash Control Valve Set Point	Slakers JUL 31 1981 (✓) If On: 601	602	603	Surge Tank Level %	North Mod Damper Position	South Mod Damper Position	(73 R3) Stack Temp
1:00 A.M.	108	32				6.5	—	100		✓	—	✓			39	75	—	154
2:00 A.M.	107	32				6.5	—	100		✓	—	✓			39	75	—	148
3:00 A.M.	105	32				6.5	—	100		✓	—	✓			39	75	—	148
4:00 A.M.	107	32				6.5	—	100		✓	—	✓			39	75	—	148
5:00 A.M.	107	32				6.5	—	100		✓	—	✓			39	75	—	148
6:00 A.M.	106	32				6.4	—	100		✓	—	✓			43	75	—	149
7:00 A.M.	109	32				6.3	—	100		✓	—	✓			35	75	—	149
8:00 A.M.	110	32				6.25	—	100		✓	—	✓			34	70	—	148
9:00 A.M.	104	31				6.0	—	100		✓	—	✓			44	70	—	154
10:00 A.M.	106	31				6.3	—	100		✓	—	✓			42	70	—	153
11:00 A.M.	107	30				6.65	—	100		✓	—	✓			60	68	—	156
12:00 Noon	104	25				6.5	—	100		✓	—	✓			59	70	—	159
1:00 P.M.	107	25				6.5	—	100		✓	—	✓			52	70	—	154
2:00 P.M.	108	27				6.5	—	100		✓	—	✓			46	70	—	154
3:00 P.M.	107	26				6.5	—	100		✓	—	✓			47	70	—	155
4:00 P.M.	106	18				6.5	—	100		✓	—	✓			44	70	—	155
5:00 P.M.	106	32				6.5	—	100		✓	—	✓			38	70	—	156
6:00 P.M.	112	30				6.5	—	100		✓	—	✓			40	70	—	159
7:00 P.M.	115	28				6.5	—	100		✓	—	✓			40	70	—	154
8:00 P.M.	108	27				6.5	—	100		✓	—	#6		✓	58	75	—	154
9:30 P.M.	107	27				6.5	—	100		✓	—			✓	60	75	—	153
10:00 P.M.	112	28				6.5	—	100		✓	—			✓	58	75	—	155
11:00 P.M.	113	26				6.5	—	100		✓	—			✓	57	75	—	154
12:00 P.M.	105	24				6.5	—	100		✓	—	✓			53	75	—	153

12:8 Rinsed JUL 31 1981

8:4 TMD

Remarks: MOD Dampers EXERC - mist wash on 5 every hour
MOD. Dampers Exercised + Mist Eliminis. Also.

	Gross Load (MW)	Regen Flow %	Office Use Only: P.H. Required	Office Use Only: Comments	Office Use Only: Avg. P.H.	North P.H.	South P.H.	Soda Ash Control Value Set Point	Ash Control Valve (✓) Auto	Ash Control Valve (✓) Man	Soda Ash Control Value Set Point	Slakers (✓) AUG 01 1981 If ON: 601	602	603	Surge Tank Level %	North Mod Damper Position	South Mod Damper Position	173 KV Stack Temp
12:00 A.M.	107	25				6.5	—	100		✓	0				49	75	—	150
1:00 A.M.	110	25				6.5	—	100		✓	0	✓			42	75	—	149
2:00 A.M.	0	22				7.2	—	100		✓	0	✓			54	0	—	182
3:00 A.M.	-5	22				7.5	—	100		✓	0	OFF 3:45AM			61	0	—	214
4:00 A.M.	34	22				7.3	—	100		✓	0	ON 5:57AM			65	0	—	232
5:00 A.M.	103	22				7.2	—	100		✓	0	✓			69	50	—	260
6:00 A.M.	112	22				7.1	—	100		✓	0	✓			77	80	—	246
7:00 A.M.	113	27				6.5	—	100		✓	—	✓			80	75	—	168
8:00 A.M.	112	30				6.5	—	100		✓	—	✓			63	65	—	148
9:00 A.M.	122	27				6.5	—	100		✓	—	✓			75	65	—	158
10:00 A.M.	125	33				6.45	—	100		✓	—	✓			76	70	—	160
11:00 A.M.	125	33				6.3	—	100		✓	—	✓			80	75	—	152
12:00 P.M.	220	33				6.45	—	100		✓	—	✓		✓ 1:30PM	66	100	—	182
1:00 P.M.	220	33				6.7	—	100		✓	—		✓	✓	64	100	—	189
2:00 P.M.	222	32				6.4	—	100		✓	—		✓	✓	53	100	—	190
3:00 P.M.	224	32				6.15	—	100		✓	—		✓	✓	38	100	—	191
4:00 P.M.	225	32				6.45	—	100		✓	—		✓	✓	38	100	—	192
5:00 P.M.	232	34				6.5	—	100		✓	—		✓	✓	38	100	—	195
6:00 P.M.	240	33				6.5	—	100		✓	—		✓	✓	38	100	—	200
7:00 P.M.	217	32				6.5	—	100		✓	—		✓		38	100	—	196
8:00 P.M.	194	28				6.5	—	100		✓	—		✓		38	100	—	183
9:00 P.M.	171	28				6.5	—	100		✓	—			✓	38	100	—	183
10:00 P.M.	127	25				6.5	—	100		✓	—			✓	38	100	—	148
11:00 P.M.	110	16				6.5	—	100		✓	—			✓	42	100	—	141

12-8 [signature] AUG 01 1981

9-4 [signature]

A.D.

REMARKS:

unit trip 232 AM — FD FAN OFF 235AM - ON TG, DAMPERS 0%

601 off 345AM - WARMING FAN 550AM

MOD. DAMPERS 45. MIST ELIMS. Fan on 710AM —

EXERCISED — Time Recirc - SET ON 10% - DOWN [illegible]

	Gros Load (MW)	Regen Flow %	Office Use Only P.H. Required	Office Use Only Comments	Office Use Only Avg. P.H.	North P.H.	South P.H.	North Soda Ash Control Valve Set Point	Soda Ash Control Valve (✓) Auto	Soda Ash Control Valve (✓) Man	South Soda Ash Control Valve Set Point	Slakers AUG 2 1981 (✓) If On 601	602	603	Surge Tank Level %	North Mod Damper Position	South Mod Damper Position	(73 R3) Stack Temp
1:00 AM	104	28				6.5	—	100		✓	0			✓	42	80	—	147
2:00 AM	107	20				6.5	—	100		✓	0			✓	42	80	—	146
3:00 AM	110	20				6.5	—	100		✓	0			✓	38	80	—	151
4:00 AM	103	22				6.5	—	100		✓	0			✓	39	80	—	153
5:00 AM	107	22				6.5	—	100		✓	0			✓	38	80	—	153
6:00 AM	111	20				6.5	—	100		✓	0			✓	39	80	—	159
7:00 AM	110	20				6.5	—	100		✓	0			✓	39	80	—	147
8:00 AM	111	22				6.7	—	100		✓	0			✓	37	80	—	151
9:00 AM	111	18				6.7	—	100		✓	0			✓	38	75	—	155
10:00 AM	111	25				6.7	—	100		✓	0			✓	34	75	—	155
11:00 AM	110	28				6.7	—	100		✓	0			✓	38	75	—	154
12:00 Noon	125	30				6.7	—	100		✓	0			✓	38	80	—	161
1:00 PM	156	32				6.7	—	100		✓	0			✓	38	80	—	171
2:00 PM	136	32				6.7	—	100		✓	0	ON 2:30 PM		✓	38	80	—	175
3:00 PM	189	32				6.7	—	100		✓	0	✓		✓	38	100	—	181
4:00 PM	200	32				6.5	—	100		✓	0	✓		✓	38	100	—	187
5:00 PM	227	32				6.5	—	100		✓	0	✓		✓	38	100	—	194
6:00 PM	250	34				6.5	—	100		✓	0	✓		✓	37	100	—	203
7:00 PM	217	32				6.5	—	100		✓	0	✓		✓	38	100	—	192
8:00 PM	191	32				6.5	—	100		✓	0	✓		✓	38	100	—	182
9:00 PM	187	32				6.5	—	100		✓		✓		✓	38	100	—	177
10:00 PM	183	32				6.5	—	100		✓		✓		✓	38	100	—	171
11:00 PM	178	31				6.5	—	100		✓		✓		✓	38	100	—	174
12:00 PM	135	31				6.5	—	100		✓					39	100		160

12-8 Comm. Tech.

AUG 2 1981

8-4 T. M.

REMARKS: MOD DAMPER EXERC — MIST WASH

Mod. Exerc. 9:30 AM (N. Soda Ash Bypass closed K.K

mod exerc. 7 PM mist wash

186

	Gross. Load (MW)	Recen Flow %	Office Use Only: P.H. Required	Office Use Only: Compliance	Office Use Only: Avg. P.H.	North P.H.	South P.H.	North Soda Ash Control Value Set Point	South Ash Control Value (✓) Auto	South Ash Control Value (✓) Man	Soda Ash Control Value Set Point	Slakers (✓) AUG 3 1981 If On: 601	602	603	Surge Tank Level %	North Mod Damper Position	South Mod Damper Position	(73 RS) Stack Temp
1:00 A.M.	105	30	—	—	—	6.5	—	100		✓	—	OFF 10:25 PM		✓	40	80	—	150
2:00 A.M.	104	27	—	—	—	6.5	—	100		✓	—			✓	38	80	—	150
3:00 A.M.	101	25	—	—	—	6.5	—	100		✓	—			✓	38	80	—	154
4:00 A.M.	101	26	—	—	—	6.5	—	100		✓	—			✓	39	80	—	152
5:00 A.M.	93	26	—	—	—	6.5	—	100		✓	—			✓	39	90	—	153
6:00 A.M.	[illegible]	[illegible]	—	—	—	6.5	—	100		✓	—			✓	39	80	—	153
7:00 A.M.	100	26	—	—	—	6.5	—	100		✓	—			✓	38	80	—	151.3
8:00 A.M.	110	27				6.7	—	100		✓	—			✓	38	80	—	153
9:00 A.M.	111	28				6.7	—	100		✓	—			✓	38	80	—	151
10:00 A.M.	165	32				6.7	—	100		✓	—	ON 10:20 PM		✓	38	90	—	162
11:00 A.M.	220	32				6.7	—	100		✓	—	✓		✓	40	100	—	179
12:00 N.	242	32				6.7	—	100		✓	—	✓		✓	42	100	—	196
1:00 P.M.	208	32				6.7	—	100		✓	—	✓		✓	43	100	—	192
2:00 P.M.																		
3:00 P.M.	152	33				6.7	—	100		✓	✓	✓		—	74	100	—	168
4:00 P.M.	141	33				6.5	—	100		✓	—			✓	40	80	—	161
5:00 P.M.	110	33		OUT		6.5	—	100		✓	—			✓	48	70	—	155
6:00 P.M.	110	—	[illegible]		—	6.5	—	0		✓	—	—	—	—	46	0	—	194
7:00 P.M.	110	28				6.5	—	100		✓	—			✓	56	0	0	251
8:00 P.M.	110	28				6.5	—	100		✓	—	—	—	✓	60	70	—	204
9:30 P.M.	110	28				6.5	—	100		✓	—	—	—	✓	60	70	—	179
10:00 P.M.	109	30				6.5	—	100		✓	—			✓	72	80	—	169
11:00 P.M.	111	32				6.5	—	100		✓	—			✓	60	80	—	163
12:00 P.M.	112	34				6.3	—	100		✓	—			✓	46	90	—	150

12.8 Boilers
8.4 1 M 503 3633

REMARKS: Scrubber off 5:40 — on @ 6.50 EVERG. mode 8:30 PM mist wash 4-12

	Gross Load (MW)	Precen Flow %	Office Use Only: Minimum P.H. Required	Office Use Only: Condenser	Office Use Only: Avg. P.H.	North P.H.	South P.H.	Soda Ash Control Valve Set Point	Ash Control Valve (O) Auto	Ash Control Valve (✓) Man	Soda Ash Control Valve Set Point	Slakers AUG 4 1981 (✓) If On: 601	602	603	Surge Tank Level %	North Mod Damper Position	South Mod Damper Position	(73 R3) Stack Temp
00 A.M.	114	32	~~7.36~~	6.49		6.3	—	100		✓	—				39	80	—	151
03 A.M.	109	32				6.3	—	100		✓	—	ON 1/2 HOUR		✓	39	80	—	151
00 A.M.	109	32		6.52		6.3	—	100		✓	—	✓		✓	41	80	—	152
00 A.M.	111	32				6.3	—	100		✓	—	ON 3 HOURS		✓	39	80	—	153
00 A.M.	111	32				6.3	—	100		✓	—			✓	39	80	—	154
00 A.M.	111	32				6.3	—	100		✓	—			✓	39	80	—	154
00 A.M.	108	32				6.3	—	100		✓	—			✓	39	80	—	150
00 A.M.	111	33	~~7.36~~	6.53		6.6	—	100		✓	—			—	38	80	—	153
00 A.M.	111	32				6.6	—	100		✓	—			✓	39	80	—	152
00 A.M.	111	32				6.6	—	100		✓	—			—	38	80	—	153
00 P.M.	123	32	~~7.38~~	7.35	6.52	6.6	—	100		✓	—			✓	39	85	—	154
00 Noon	160	32	~~7.37~~	→	6.36	6.6	—	100		✓	—	ON 12 45 PM		—	40	100	—	164
00 P.M.	190	32	~~7.20~~		6.23	6.6	—	100		✓	—	✓		—	43	100	—	167
00 P.M.	211	33	~~7.15~~		6.18	6.6	—	100		✓	—	—		—	48	100	—	183
00 P.M.	214	33	~~7.14~~			6.5	—	100		✓	—	✓		—	62	100	—	185
00 P.M.	213	32				6.4	—	100		✓	—	✓		✓	63	100	—	186
00 P.M.	200	32				6.35	—	100		✓	—	✓		✓	72	100	—	185
00 P.M.	161	34				6.35	—	100		✓	—	✓		✓	76	100	—	165
00 P.M.	146	34				6.35	—	100		✓	—	ON 7 40		✓	80	100	—	161
00 P.M.	152	34		6.52		6.4	—	100		✓	—			✓	84	100	—	177
00 P.M.	147	34				6.4	—	100		✓	—			✓	85	100	—	182
00 P.M.	138	34				6.35	—	100		✓	—			✓	78	100	—	161
00 P.M.	109	34				6.4	—	100		✓	—			✓	74	100	—	147
00 P.M.	106	34				6.3	—	100		✓	—			✓	72	90	—	144

12-8 Rain Boots

8-4 T.M.

A.O.

Remarks: mod Damper + MIST WASH
AUG 4 1981 Mod. Exam. 10 35 AM.
Mod Exam 7:20 ; Mist Wash.

159 MW

	Gross Load (MW)	Gen Flow %	Office Use Only: P.H. Required	Office Use Only: Comments	Office Use Only: Avg. P.H.	North P.H.	South P.H.	North Soda Ash Control Valve Set Point	South Ash Control Valve (✓) Auto	South Ash Control Valve (✓) Man	Soda Ash Control Valve Set Point	Slakers (✓) If On: 601	602	603	Silage Tank Level %	North Mod Damper Position	South Mod Damper Position	(73 R3) Stack Temp
00 A.M.	109	34				6.3	—	100		✓	—			✓	71	95	—	144
00 A.M.	103	34				6.3	—	100		✓	—			✓	50	95	—	145
00 A.M.	117	32				6.3	—	100		✓	—			✓	38	95	—	146
00 A.M.	107	32				6.3	—	100		✓	—			✓	39	95	—	145
00 A.M.	113	32				6.3	—	100		✓	—			✓	39	95	—	146
00 A.M.	111	32				6.3	—	100		✓	—			✓	39	95	—	145
00 A.M.	113	32				6.3	—	100		✓	—			✓	39	95	—	145
00 A.M.	114	33				6.6	—	100		✓	—			✓	39	95	—	145
00 A.M.	114	32				6.7	—	100		✓	—			✓	38	95	—	146
00 A.M.	113	41				6.4	—	100		✓	—			✓	40	95	—	189
00 A.M.	135	38				6.3	—	100		✓	—			✓	37	100	—	151
00 Noon	155	39				6.3	—	100		✓	—			✓	38	100	—	158
00 P.M.	166	44	X (>160mw)			6.3	—	100		✓	—			✓	37	100	—	190
00 P.M.	168	44	X (>160 MW)			6.3	—	100		✓	—			✓	38	100	—	169
00 P.M.	122	44				6.6	—	100		✓	—			✓	38	100	—	164
00 P.M.	117	35				6.4	—	100	✓	—				✓	47	95	—	150
00 P.M.	113	57				6.5	—	100	✓	—				✓	48	90	—	146
00 P.M.	157	55				6.3	—	100	✓	—				✓	37	90	—	151
00 P.M.	160	56				6.4	7.2	100	✓	100				✓	44	55	55	151
00 P.M.	162	57				6.35	6.55	100	✓	100				✓	43	45	45	144
00 P.M.	110	56				6.45	6.8	100	✓	100				✓	46	35	35	156
00 P.M.	103	55				6.55	6.8	100	✓	100				✓	40	35	35	154
00 P.M.	110	33				6.6	6.5	100	✓	100				✓	60	35	35	152
00 P.M.	110	32				6.5	6.5	100	✓	100				✓	52	40	40	153

12-8 Rawlee

AUG 5 1981

8-4 T.M.

Remarks: mod dampers, mist nozz. South soda ash control 100% open @ 7PM
Mod. Exerc. 9:10 AM (N. Soda Bypass wide open)
4:45 Started warming up South Mod. damp. - Fan on @ 6:55 PM -
[illegible] on - 4:20 PM

	Gen. Load (MW)	Regen Flow %	Office Use Only: P.H. Required	Comments	Avg. P.H.	North P.H.	South P.H.	North Soda Ash Control Valve Set Point	Soda Ash Control Valve (✓) Auto	Soda Ash Control Valve (✓) Man	Soda Ash Control Valve Set Point	Slakers (✓) If On: 601	602	603	Surge Tank Level %	North Mod Damper Position	South Mod Damper Position	(73 R3. Stack Temp
12:00 A.M.	108	34				7.3	6.5	100		✓	100			✓	55	60	20	146
1:00 A.M.	111	25				7.25	6.5	100		✓	100			✓	60	70	20	143
2:00 A.M.	109	22				7.3	6.5	100		✓	100			✓	56	70	20	141
3:00 A.M.	109	24				7.3	6.5	100		✓	100			✓	70	70	20	140
4:00 A.M.	109	32				7.25	6.5	100		✓	100			✓	45	70	20	141
5:00 A.M.	112	47				7.45	6.5	100		✓	100			✓	45	40	40	140
6:00 A.M.	110	47				7.45	6.5	100		✓	100			✓	42	40	40	141
7:00 A.M.	110	46				7.5	6.5	100		✓	100			✓	40	40	40	146
8:00 A.M.	111	32				7.5	6.5	100		✓	100			✓	42	40	40	145
9:00 A.M.				GEN.		TRIP								OFF 9:30 PM				
10:00 A.M.												ON 11:30 AM						
11:00 A.M.	117	33				6.8	6.5	100		✓	100	✓			42	55	40	155
12:00 P.M.	330	52				6.4	6.15	100		✓	100	✓	ON 1:30 PM		30	65	65	150
1:00 P.M.	352	58				6.4	6.3	100		✓	100	✓	✓		40	65	65	150
2:00 P.M.	351	56				6.3	6.45	100		✓	100	✓	✓		50	65	65	155
3:00 P.M.	253	60				6.4	6.5	100		✓	100	✓	✓		43	65	65	156
5:00 P.M.	235	60				6.3	6.5	100		✓	100	✓	✓		40	65	65	154
6:00 P.M.	235	60				6.2	6.5	100		✓	100	✓	✓		44	65	65	147
7:00 P.M.	215	58				6.2	6.5	100		✓	100	✓	✓		42	55	55	147
8:00 P.M.	110	54				6.3	6.6	100		✓	100	✓	OFF 7:58 PM		44	35	35	147
9:00 P.M.	110	54				6.5	6.65	100		✓	100	✓			53	35	35	147
10:00 P.M.	104	54				6.5	6.7	100		✓	100	✓			44	35	35	154
11:00 P.M.	108	50				6.5	6.7	100		✓	100	✓			25	35	35	152
12:00 P.M.	111	48				6.5	6.5	100		✓	100	✓			42	35	35	149

SLAKERS AUG 6 1981

12:00 Ron Ter

8:00 P.M. Les

Remarks: mod dampers, not work - DONOT BELEIVE Nph probe -
Scrubber off 12 AM
Scrubber ON 1 P.M.

	GEC LOAD (MW)	REGEN FLOW %	OFFICE USE ONLY P.H. REQUIRED	CONTINUED	AVG. P.H.	NORTH P.H.	SOUTH P.H.	SODA ASH CONT. VALUE SET POINT	ASH CONTROL VALVE (✓) AUTO	(✓) MAN	SODA ASH CONTROL VALUE SET POINT	SLAKERS AUG 7 1981 (✓) IF ON 601	602	603	SURGE TANK LEVEL %	NORTH MI DAMPER POSITION	SOUTH MOD DAMPER POSITION	STACK TEMP
1:00 A.M.	100	50				6.5	6.5	100		✓	100	✓			40	35	35	149
2:00 A.M.	111	46				6.5	6.5	100		✓	100	✓			38	35	35	149
3:00 A.M.	102	50				6.5	6.5	100		✓	100	✓			36	35	35	150
4:00 A.M.	111	46				6.5	6.5	100		✓	100	✓			42	35	35	149
5:00 A.M.	103	43				6.5	6.5	100		✓	100	✓			38	35	35	149
6:00 A.M.	107	44				6.6	6.5	100		✓	100	✓			40	35	35	149
7:00 A.M.	110	45				6.6	6.5	100		✓	100	✓			40	35	35	149
8:00 A.M.	110	44				6.7	6.7	100		✓	100	✓			34	35	35	146
9:00 A.M.	110	24				7.1	6.6	100		✓	100	✓			36	35	35	147
10:00 A.M.	110	23				7.1	6.6	100		✓	100	✓			35	35	35	147
11:00 A.M.	114	23				7.1	6.6	100		✓	100	✓			39	35	35	1416
12:00 N.OON	113	23				7.0	6.6	100		✓	100	✓			42	35	35	151
1:00 P.M.	165	27				7.1	6.6	100		✓	100	✓			46	50	50	153
2:00 P.M.	170	28				7.0	6.6	100		✓	100	✓			45	45	45	14[illegible]
3:00 P.M.	200	30				7.0	6.6	100		✓	100	✓			39	53	53	147
4:00 P.M.	200	43				6.45	6.5	100		✓	100	✓	✓		36	53	53	145
5:00 P.M.	155	32				6.5	6.5	100		✓	100	✓	✓		59	50	50	145
6:00 P.M.	133	27				6.5	6.5	100		✓	100	✓	✓		76	35	35	145
7:00 P.M.	117	22				6.5	6.5	100		✓	100	✓	P.H. 6.5 P.M.		80	35	35	151
8:00 P.M.	115	21				6.5	6.5	100		✓	100	✓			72	35	35	147
9:30 P.M.	117	22				6.5	6.5	100		✓	100	✓			61	35	35	147
10.00 P.M.	120	21				6.5	6.5	100		✓	100	✓			66	35	35	142
11:00 P.M.	120	20				6.5	6.5	100		✓	100	✓			53	33	33	152
12:00 P.M.	121	20				6.5	6.5	100		✓	100	✓			40	33	33	152

12-8 (—).

8-4 1.M.

4-12 MID

REMARKS:

Mod's Excer. 9:45 P.M. (N. Reg. Bypass closed)

N. Liquid Level 7.5 B.P.) (N. Soda Ash closed @ 5 50% OP

AUG 8 1981

	Gro Load (MW)	Regen Flow %	Office P.H. Required	Office Conductivity	Office Avg. P.H.	North P.H.	South P.H.	Soda Ash Contr Valve Set Point	Ash Control Valve (✓) Auto	Ash Control Valve (✓) Man	Ash Control Valve Set Point	(✓) If On 601	602	603	Tank Level %	Mod Dam Position	Mod Damper Position	Stack Temp
1:00 A.M.	111	21				6.5	6.5	100		✓	100	✓			42	35	35	150
2:00 A.M.	111	20				6.5	6.5	100		✓	100	✓			40	35	35	150
3:00 A.M.	110	21				6.5	6.5	100		✓	100	✓			40	35	35	149
4:00 A.M.	110	20				6.5	6.5	100		✓	100	✓			40	35	35	147
5:00 A.M.	111	20				6.5	6.5	100		✓	100	✓			40	35	35	147
6:00 A.M.	109	20				6.5	6.5	100		✓	100	✓			40	35	35	146
7:00 A.M.	109	20				6.5	6.5	100		✓	100	✓			40	35	35	145
8:00 A.M.	114	19				6.7	6.7	100		✓	100	✓			36	35	35	146
9:00 A.M.	114	19				6.7	6.7	100		✓	100	OFF 9:18 AM	For Maint.		36	35	35	149
10:00 A.M.	114	18				6.7	6.7	100		✓	100	ON 10:54			42	25	25	161
11:00 A.M.	110	16				6.7	6.6	100		✓	100	✓			50	25	25	180
12:00 Noon	110	18				6.7	6.6	100		✓	100	OFF 12:55	1	ON 12:55	38	25	25	165
1:00 P.M.	111	16				6.7	6.6	100		✓	100			✓	42	20	20	181
2:00 P.M.	111	22				6.7	6.6	100		✓	100		ON 2 PM		60	35	35	166
3:00 P.M.	111	22		✓		6.7	6.7	100		✓	100	OFF 3:55 PM	✓		78	35	35	146
4:00 P.M.	110	21			ALL	6.5	6.5	100		✓	100	ON 3:58 PM		OFF 4:55 PM	84	35	35	141
5:00 P.M.	110	20		Scrubber		6.5	6.5	100		✓	100	✓			91	35	35	156
6:00 P.M.	110	21	Scrubber	HR		6.5	6.5	100		✓	100	✓	✓		59	35	35	151
7:00 P.M.	110	20	✓	✓		6.5	6.5	100		✓	100	✓			90	30	30	150
8:00 P.M.	—	—	Scrubber			—	OUT	—	OF	—	—	OFF 7:40 PM	— Service					
9:00 P.M.	110	21				6.45	6.45	100		✓	100	✓			80	35	35	24
10:00 P.M.	112	27				6.55	6.5	100		✓	100	✓			76	35	35	152
11:00 P.M.	110	27				6.5	6.5	100		✓	100	✓	✓		94	35	35	151
12:00 P.M.	111	28				6.5	6.5	100		✓	100	✓	✓		100	35	35	15

12-8 J. L.

8-4 T. M. 343

4-12 MD 40-

REMARKS: Electrician on Mod's & Unit working at 6:20 AM

Mod's Excer. 11 15/AM

MOD Dampers Close D + Fans OFF @ 7:38 PM - Lime Trans. Trouble

Soda Ash control Valves Closed @ 7:45 PM - Scrubber OFF. - ON @ 8:50 Fans on @ 8:50 PM

192

	GRS LOAD (MW)	REGEN FLOW %	P.H. REQUIRED	CONDENSER	AVG. P.H.	NORTH P.H.	SOUTH P.H.	SODA ASH CONT VALVE SET POINT	ASH CONTROL VALVE (✓) AUTO	ASH CONTROL VALVE (✓) MAN	SODA ASH CONTROL VALVE SET POINT	SEARCHED AUG 9 1981 (✓) IF ON 601	602	603	TANK LEVEL %	NORTH MOD DAMPER POSITION	MOD DAMPER POSITION	STACK TEMP
1:00 A.M.	111	29				6.5	6.5	100		✓	100	✓			100	35	35	150
2:00 A.M.	111	28				6.5	6.5	100		✓	100	✓			100	35	35	149
3:00 A.M.	110	27				6.5	6.5	100		✓	100	✓			100	35	35	148
4:00 A.M.	111	27				6.5	6.5	100		✓	100	✓			100	35	35	147
5:00 A.M.	110	27				6.5	6.5	100		✓	100	✓			100	35	35	147
6:00 A.M.	110	25				6.5	6.5	100		✓	100	✓			96	35	35	146
7:00 A.M.	111	37				6.5	6.5	100		✓	100	✓			88	35	35	173
8:00 A.M.	109	48				6.5	6.5	100		✓	100	✓			73	40	40	152
9:00 A.M.	114	48				6.0	6.5	100		✓	100	✓			60	40	40	146
10:00 A.M.	113	44				6.5	6.5	100		✓	100	✓			62	40	40	150
11:00 A.M.	110	40				6.5	6.5	100		✓	100	✓			50	38	38	145
12:00 NOON	111	36				6.5	6.5	100		✓	100	✓			41	40	40	141
1:00 P.M.	115	34				6.5	6.5	100		✓	100	✓			43	40	40	139
2:00 P.M.	110	34				6.5	6.5	100		✓	100	✓			34	40	40	141
3:00 P.M.	113	32				6.5	6.5	100		✓	100	✓			47	40	40	144
4:00 P.M.	113	43				6.1	6.5	100		✓	100	✓			36	35	35	142
5:00 P.M.	110	26				6.55	6.5	100		✓	100	✓			33	35	35	150
6:00 P.M.	110	26				6.6	6.5	100		✓	100	✓			36	35	35	157
7:00 P.M.	110	26				6.6	6.5	100		✓	100	✓			39	35	35	151
8:00 P.M.	110	24				6.6	6.5	100		✓	100	✓			35	35	35	151
9:00 P.M.	110	24				6.6	6.5	100		✓	100	✓			35	35	35	152
10:00 P.M.	110	24				6.6	6.5	100		✓	100	✓			42	35	35	151
11:00 P.M.	110	26				6.6	6.5	100		✓	100	✓			43	35	35	151
12:00 P.M.	10	28				6.6	6.5	100		✓	100	✓			42	35	35	150

12-8 C.S.

8-4 Plant Eng.

4-12 MO

REMARKS: [illegible] 6:00 a.m. / Spec mod + ash vault

MOD. Dampers & MISTE Lins. Exercised

AUG 10 1981

	GRC LOAD (MW)	REGEN FLOW %	OFFICE USE ONLY: P.H. REQUIRED	OFFICE USE ONLY: COMPLIANCE	OFFICE USE ONLY: AVG. P.H.	NORTH P.H.	SOUTH P.H.	SODA ASH CONTROL VALVE SET POINT	ASH CONTROL VALVE (✓) AUTO	ASH CONTROL VALVE (✓) MAN	SODA ASH CONTROL VALVE SET POINT	SLAKERS (✓) IF ON: 601	602	603	SURGE TANK LEVEL %	NORTH MI DAMPER POSITION	SOUTH MOD DAMPER POSITION	(73 R STAC TEM
1:00 A.M.	111	27				6.6	6.5	100		✓	100	✓			38	35	35	144
2:00 A.M.	[illegible]	27				6.6	6.5	100		✓	100	✓			36	35	35	148
3:00 A.M.	113	25				6.6	6.5	100		✓	100	✓			42	35	35	151
4:00 A.M.	111	24				6.6	6.5	100		✓	100	✓			40	35	35	151
5:00 A.M.	112	24				6.6	6.5	100		✓	100	✓			40	35	35	152
6:00 A.M.	111	24				6.6	6.5	100		✓	100	✓			44	35	35	151
7:00 A.M.	113	42				6.4	6.5	100		✓	100	✓			44	35	35	155
8:00 A.M.	113	25				7.1	6.7	100		✓	100	✓			50	35	35	160
9:00 A.M.	117	25				7.0	6.7	100		✓	100	✓			44	35	35	161
10:00 A.M.	188	25 ↑				7.0	6.7	100		✓	100		✓		60	30	30	206
11:00 A.M.	201	34 ↑				6.8	6.6	100		✓	100	✓	✓		68	50	50	192
12:00 NOON	248	48 ↑				6.7	6.6	100		✓	100	✓	✓		60	52	55	145
1:00 P.M.	258	48 ↑				6.6	6.5	100		✓	100	✓		✓	56	55	57	167
2:00 P.M.	265	48 ↑				6.6	6.6	100		✓	100	✓		✓	52	55	57	176
3:00 P.M.	261	47 ↑				6.4	6.5	100		✓	100	✓		✓	44	55	57	172
4:00 P.M.	205	48				6.4	6.5	100		✓	100	✓		✓	40	50	50	178
5:00 P.M.	205	47				6.35	6.4	100		✓	100	✓		✓	40	70	70	149
6:00 P.M.	205	47				6.3	6.35	100		✓	100	✓		✓	40	65	65	141
7:00 P.M.	210	47				6.2	6.35	100		✓	100	✓		✓	34	55	55	141
8:00 P.M.	190	48				6.3	6.45	100		✓	100	✓		✓	42	50	50	145
9:30 P.M.	194	47				6.25	6.45	100		✓	100	✓		✓	43	50	50	149
10:00 P.M.	190	46				6.3	6.4	100		✓	100	✓		✓	36	50	50	147
11:00 P.M.	167	47				6.3	6.45	100		✓	100	✓		✓	39	45	45	146
12:00 P.M.	130	45				6.2	6.5	100		✓	100	✓		✓	44	35	35	

12-8 C. B.

8-4 P.B.

4-12 TMD

REMARKS: Extra mod/aux mill Plant 6:45 AM to 2 PM & 8:30 PM
601 LOCKED UP 9:45 AM ON 10:15 ON AUTO 1 PM
602 ON 9:00 AM OFF 1 PM
603 ON 11 AM

	GAC LOAD (MW)	REGEN FLOW %	P.H. REQUIRED	CONTINUED	AVG. P.H.	NORTH P.H.	SOUTH P.H.	SODA ASH CONTR VALUE SET POINT	ASH CONTROL VALUE (✓) AUTO	(✓) MAN	SODA ASH CONTROL VALUE SET POINT	SLAKERS AUG 11 1981 (✓) IF ON 601	602	603	SURGE TANK LEVEL %	NORTH MC DAMPER POSITION	SOUTH MOD DAMPER POSITION	(73 R STAC TEM
1:00 A.M.	110	44				6.2	6.5	100		✓	100	✓			44	35	35	143
2:00 A.M.	110	44				6.2	6.5	100		✓	100	✓			42	35	35	143
3:00 A.M.	107	41				6.2	6.5	100		✓	100	✓			40	35	35	142
4:00 A.M.	111	41				6.2	6.5	100		✓	100	✓			38	35	35	141
5:00 A.M.	109	44				6.2	6.5	100		✓	100	✓			40	35	35	141
6:00 A.M.	109	45				6.2	6.5	100		✓	100	✓			44	35	35	141
7:00 A.M.	109	45				6.2	6.5	100		✓	100	✓		ONLY 240 MW	46	35	35	140
8:00 A.M.	105	27				6.2	6.5	100		✓	100	✓		✓	40	35	35	140
9:00 A.M.	86	14				7.15	6.5	100		✓	100	✓		✓	60	45	45	145
10:00 A.M.	84	12				7.0	6.5	100		✓	100	✓		✓	66	50	50 MANUAL	160
11:00 A.M.	84	12				7.1	6.5	100		✓	100	✓		✓	57	45	45	150
12:00 NOON	154	35				6.6	6.5	100		✓	100	✓		✓	56	45	45	150
1:00 P.M.	160	25				6.6	6.5	100		✓	100	✓		✓	48	45	50	145
2:00 P.M.	159	28				6.6	6.5	100		✓	100	✓		✓	50	45	50	150
3:00 P.M.	161	18				6.5	6.5	100		✓	100	✓		✓	50	45	50	145
4:00 P.M.	156	27				6.5	6.5	100		✓	100	✓		✓	36	45	45	146
5:00 P.M.	155	30				6.5	6.5	100		✓	100	✓		✓	37	45	45	142
6:00 P.M.	104	23				6.5	6.5	100		✓	100	✓		✓	44	35	35	148
7:00 P.M.	110	21				6.5	6.5	100		✓	100			✓	44	35	35	146
8:00 P.M.	110	22				6.5	6.5	100		✓	100	✓			38	35	35	158
9:30 P.M.	110	22				6.5	6.5	100		✓	100	✓			36	40	40	152
10:00 P.M.	113	23				6.5	6.5	100		✓	100	✓			40	40	40	150
11:00 P.M.	111	24				6.5	6.5	100		✓	100	✓			37	40	40	150
12:00 P.M.	113	25				6.5	6.5	100		✓	100	✓			36	40	40	

12:8 O.K.

9:4 O.K.

DMD

REMARKS: Specimen mail via truck 6:40 AM

195

	Gross Load (MW)	Regen Flow %	Office Use Only: P.H. Required	Office Use Only: Continuous	Office Use Only: Avg. P.H.	North P.H.	South P.H.	Soda Ash Control Valve Set Point	Ash Control Valve (✓) Auto	Ash Control Valve (✓) Man	Ash Control Valve Set Point	(✓) AUG 12 1981 601	602	603	Tank Level %	Mod Damp Position	Mod Damper Position	Stack Temp
1:00 A.M.	113	35				6.5	6.5	100		✓		✓			38	38	38	149
2:00 A.M.	111	35				6.5	6.5	100		✓		✓			40	38	40	147
3:00 A.M.	110	28				6.5	6.5	100		✓		✓			42	40	40	147
4:00 A.M.	109	28				6.5	6.5	100		✓		✓			38	40	40	147
5:00 A.M.	111	28				6.5	6.5	100		✓		✓			36	40	40	150
6:00 A.M.	113	30				6.5	6.5	100		✓		✓			38	40	40	149
7:00 A.M.	111	35				6.5	6.5	100		✓		✓		ON 6:45	42	40	40	147
8:00 A.M.	109	28				6.5	6.5	100		✓	1:00	✓		✓	50	40	40	149
9:00 A.M.	111	28				6.5	6.5	100		✓	100	OFF 9:45		✓	44	40	40	148
10:00 A.M.	141	44				6.5	6.5	100		✓	100			✓	42	50	50	147
11:00 A.M.	143	38				6.5	6.5	100		✓	100			✓	40	45	45	140
12:00 Noon	117	36				6.5	6.5	100		✓	100			✓	38	40	40	141
1:00 P.M.	109	44				6.5	6.5	100		✓	100			✓	84	40	40	148
2:00 P.M.	108	54				6.5	6.5	100		✓	100			✓	96	40	40	156
3:00 P.M.	115	40				6.6	7.0	100		✓	100			✓	54	60	60	150
4:00 P.M.	210	55				6.7	6.7	100		✓	100	ON 3:50 PM	ON 3:50 PM	✓	94	60	60	151
5:00 P.M.	210	43				6.7	6.8	100		✓	100	✓	✓	✓	42	60	60	142
6:00 P.M.	210	48				6.7	6.8	100		✓	100	✓	✓	✓	39	58	58	140
7:00 P.M.	211	34				6.6	6.8	100		✓	100	✓	✓	✓	100	56	56	142
8:00 P.M.	214	33				6.6	6.8	100		✓	100	✓	✓	✓	98	95	0	166
9:00 P.M.	243	57				6.6	6.4	100		✓	100	OFF 8:45 PM	✓	✓	96	70	70	151
10:00 P.M.	185	49				6.7	6.7	100		✓	100		✓	✓	96	55	55	140
11:00 P.M.	138	48				6.7	6.7	100		✓	100		OFF 11:30 PM	✓	96	55	55	14
12:00 P.M.	115	35				6.6	7.1	100		✓	100			✓	96	35	35	150

12-8 O. K.

8-4 BAD

T. M.

REMARKS: Gave mods manual ON @ 5:20

Mod Exerc. 5:45 PM

S. side F.D. fan off 7:50 PM (ON 8:10 PM)

961

	Gross Load (MW)	Regen Flow %	P.H. Required	Continuous	Avg. P.H.	North P.H.	South P.H.	Soda Ash Control Value Set Point	Ash Control Value (✓) Auto	(✓) Man	Ash Control Value Set Point	(✓) AUG 13 1981 If ON 601	602	603	Tank Level %	Mod Damper Position	Mod Damper Position	Stack Temp
12:00 A.M.	110	36				6.6	6.7	100		✓	100			✓	98	45	45 (X)	170
1:00 A.M.	132	35				6.5	6.7	100		✓	100			✓	97	45	45	155
2:00 A.M.	131	36				6.5	6.5	100		✓	100			✓	90	45	45	146
3:00 A.M.	141	34				6.5	6.5	100		✓	100			✓	64	40	40	143
4:00 A.M.	120	32				6.5	6.5	100		✓	100			✓	46	40	40 (X)	135
5:00 A.M.	112	28				6.5	6.5	100		✓	100		Auto 6:30 A.M.	✓	40	40	45	148
6:00 A.M.	162	50				6.5	6.5	100		✓	100		✓	✓	40	55	55	152
7:00 A.M.	204	50				6.4	6.5	100		✓	100		✓	✓	42	55	60	167
8:00 A.M.	210	50				6.4	6.5	100		✓	100		✓	—	44	55	60	155
9:00 A.M.	216	50				6.35	6.5	100		✓	100		✓	✓	54	55	60	155
10:00 A.M.	214	52				6.2	6.5	100		✓	100		✓	✓	54	55	60	155
11:00 A.M.	214	52				6.2	6.5	100		✓	100		✓	✓	57	55	60	155
12:00 P.M.	216	50				6.5	6.5	100		✓	100		✓	✓	46	55	60	155
1:00 P.M.	252	40	X			6.5	6.6	100		✓	100		✓	✓	40	55	0 X	210
2:00 P.M.	255		X			6.5	6.8	100		✓	100		OFF 2:10 PM	✓	35	55	0 X	216
3:00 P.M.	253	28	X			6.7	7.0	100		✓	100			✓	39	0	0 X	243
4:00 P.M.	251	28	X			6.7	6.9	100		✓	100			✓	38	35	35 X	253
5:00 P.M.	252	32	X			6.7	6.8	100		✓	100			✓	38	35	35 X	228
6:00 P.M.	251	29	X			6.7	6.8	100		✓	100			✓	28	35	35 X	225
7:00 P.M.	253	38	X			6.7	6.12	100		✓	100	ON 2:25 PM		OFF 2:25 PM	28	35	35 X	22
8:00 P.M.	250	27	X			6.7	6.7	100		✓	100	✓			32	35	35 X	22
9:00 P.M.	115	29	X			6.7	6.7	100		✓	100	✓			38	35	35 X	18
10:00 P.M.	113	31				6.5	6.7	100		✓	100	✓			41	35	35	

12-8 A Hart

2-4 [illegible]

4-12 T.M.

REMARKS: Specially [illegible] Walk 5:30 AM.
Mod. Exer. 6:39 PM.

197

	GRO LOAD (MW)	REGEN FLOW %	OFFICE USE ONLY P.H. REQUIRED	CONTAINER	AVG. P.H.	NORTH P.H.	SOUTH P.H.	SODA ASH CONTR VALVE SET POINT	ASH CONTROL VALVE (✓) AUTO	ASH CONTROL VALVE (✓) MAN	SODA ASH CONTROL VALVE SET POINT	SLAKERS (✓) IF ON 601	602	603	SURGE TANK LEVEL %	NORTH MD DAMPER POSITION	SOUTH MOD DAMPER POSITION	(73 R STAC T.E.M
1:00 A.M.	111	30				6.5	6.7	100		✓	100	✓			39	40	40	161
2:00 A.M.	110	39				6.0	6.55	100		✓	100	✓			39	40	40	149
3:00 A.M.	110	39				6.5	6.55	100		✓	100	✓			37	40	40	145
4:00 A.M.	110	33				6.5	6.55	100		✓	100	✓			35	40	40	145
5:00 A.M.	110	35				6.5	6.5	100		✓	100	✓			33	40	40	144
6:00 A.M.	110	33				6.5	6.5	100		✓	100	✓			38	36	37	141
7:00 A.M.	111	33				6.5	6.5	100		✓	100	✓			39	36	37	142
8:00 A.M.	125	41				6.5	6.5	100		✓	100	✓			38	45	45	152
9:00 A.M.	155	48				6.5	6.5	100		✓	100	✓	ON 9:30 AM ✓	ON 7:30 PM ✓	44	—	50	153
10:00 A.M.	195	50				6.45	6.3	100		✓	100	✓ Off 6:00 PM	✓	✓	50	60	60	155
11:00 A.M.	223	50				6.3	6.3	100		✓	100		✓	✓	38	60	60	157
12:00 Noon	257	50				6.1	6.3	100		✓	100		✓	✓	40	30	60	161
1:00 P.M.	252	50				6.0	6.5	100		✓	100		✓	✓	38	70	70	151
2:00 P.M.	255	58				5.8	6.5	100		✓	100	ON 2:00 P ✓	✓	✓	56	70	70	206
3:00 P.M.	248	64				6.2	6.2	100		✓	100	ON 3:15 PM ✓	Took down	✓	56	70	70	195
4:00 P.M.	262	63				6.4	6.4	100		✓	100	—		—	48	70	70	160
5:00 P.M.	262	63				6.7	6.9	100		✓	100	OFF	OFF	OFF	80	0	0	274
6:00 P.M.	258	56				6.4	6.9	100		✓	100				92	0	0	289
7:00 P.M.	258	55				6.3	6.9	100		✓	100				92	0	0	281
8:00 P.M.	260	61				6.3	6.8	100		✓	100	ON 8:45 PM		ON 8:00 PM	88	0	0	231
9:30 P.M.	262	56				6.8	7.0	0		✓	0	—	ON 2:00 PM	✓	96	20	30	265
10:00 P.M.	256	64				6.6	6.8	0		✓	0	—	—	—	96	40	40	230
11:00 P.M.	120	63				6.6	6.7	0		✓	0	OFF 10:30 PM	✓	✓	97	40	40	156
12:00 P.M.	110	62				6.5	6.8	0		✓	0		✓	✓	97	40	40	148

12-8 MO

8-4 1330

4-12 T.M.

8/14/81

REMARKS: Mod's & Maint - Experienced - 1:30 P.M. Mod Dampers closed Because of Lime Transfer Problems.

Nos. 1 & 2 Fans off 4:45 P.M. (Nos. 1 & 2 Fans on 6:10 P.M.).

198

	Gross Load (MW)	Regen Flow %	Office Use Only: P.H. Required	Continuous	Avg. P.H.	North P.H.	South P.H.	Soda Ash Control Value Set Point	Ash Control Valve (✓) Auto	Ash Control Valve (✓) Man	Ash Control Value Set Point	(✓) If On 601	602	603	Tank Level %	Mod Damp Position	Mod Damper Position	Stack Temp.
1:00 A.M.	110	62				6.5	6.8	0		✓	0		✓	✓	97	40	40	146
2:00 A.M.	110	62				6.45	6.8	0		✓	0		✓	✓	97	40	40	144
3:00 A.M.	110	62				6.5	6.75	0		✓	0	✓		✓	97	40	40	143
4:00 A.M.	110	55				6.5	6.5	0		✓	0	✓		✓	97	40	40	144
5:00 A.M.	110	55				6.5	6.5	0		✓	0	✓		✓	100	38	37	144
6:00 A.M.	110	47				6.5	6.5	0		✓	0	off 52 min		✓	100	37	37	143
7:00 A.M.	110	50				6.5	6.5	0		✓	0			✓	100	35	35	146
8:00 A.M.	113	56				6.45	6.5	0		✓	0			✓	100	35	35	147
9:00 A.M.	113	50				7.1	6.5	0		✓	0			✓	100	—	35	208
10:00 A.M.	110	43				6.8	6.5	0		✓	0			✓	100	—	70	168
11:00 A.M.	110	43				6.75	6.4	0		✓	0			✓	100	—	70	151
12:00 Noon	111	43				6.5	6.2	0		✓	0			✓	100	—	70	143
1:00 P.M.	111	43				6.5	6.2	0		✓	0			✓	100	—	70	145
2:00 P.M.	110	43				6.6	6.2	0		✓	0			✓	100	—	60	151
3:00 P.M.	110	55				6.5	6.5	0		✓	0			✓	100	35	35	163
4:00 P.M.	109	56				6.6	6.7	0		✓	0			✓	99	40	40	162
5:00 P.M.	110	55				6.7	6.7	0		✓	0			✓	98	40	40	145
6:00 P.M.	108	54				6.7	6.7	0		✓	0			✓	98	40	40	150
7:00 P.M.	108	53				6.7	6.7	0		✓	0			✓	98	40	40	156
8:00 P.M.	109	52				6.7	6.7	0		✓	0			✓	97	40	40	150
9:00 P.M.	108	36				6.7	6.7	0		✓	0			✓	97	40	40	151
10:00 P.M.	110	26				6.7	6.7	100		✓	100			✓	98	40	40	145
11:00 P.M.	105	27				6.8	6.7	100		✓	100			✓	97	40	40	142
12:00 P.M.	104	28				6.5	6.6	100		✓	100			✓	95	40	40	

12-8 MD

8-4 MD

DS

REMARKS: North Mob Auger stuck / 1 half Unit Out / Turning Gear stem upset on North F.D. Fan so we put it Back on.

SODA ASH CONTROL AND BYPASS OPEN 8:45 PM

AUG 16 1981

	GRC LOAD (MW)	REGEN FLOW %	OFFICE USE ONLY P.H. REQUIRED	OFFICE USE ONLY CONFIRMED	OFFICE USE ONLY AVG. P.H.	NORTH P.H.	SOUTH P.H.	SODA ASH CONTROL VALVE SET POINT	ASH CONTROL VALVE (✓) AUTO	ASH CONTROL VALVE (✓) MAN	SODA ASH CONTROL VALVE SET POINT	SLAKERS (✓) IF ON 601	602	603	SURGE TANK LEVEL %	NORTH MOD DAMPER POSITION	SOUTH MOD DAMPER POSITION	LIQUOR STACK TEMP
12:00 A.M.	108	24				6.5	6.6	100		✓	100			✓	94	40	40	142
1:00 A.M.	107	37				6.45	6.6	100		✓	100			✓	85	37	37	145
2:00 A.M.	110	25				6.5	6.65	100		✓	100			✓	87	37	37	147
3:00 A.M.	112	24				6.5	6.6	100		✓	100			✓	86	37	37	147
4:00 A.M.	112	28				6.5	6.6	100		✓	100			✓	80	37	37	147
5:00 A.M.	113	23				6.5	6.6	100		✓	100			✓	79	37	37	146
6:00 A.M.	112	23				6.5	6.6	100		✓	100			✓	76	37	37	146
7:00 A.M.	111	23				6.5	6.6	100		✓	100			✓	72	35	35	146
8:00 A.M.	111	36				6.5	6.65	100		✓	100			✓	58	35	35	152
9:00 A.M.	115	32				6.5	6.5	100		✓	100			✓	58	35	40	146
10:00 A.M.	111	30				6.5	6.5	100		✓	100			✓	57	35	40	146
11:00 A.M.	111	28				6.5	6.5	100		✓	100			✓	54	35	40	146
12:00 P.M.	110	30				6.5	6.5	100		✓	100			✓	46	35	40	146
1:00 P.M.	111	30				6.5	6.5	100		✓	100			✓	40	35	40	146
2:00 P.M.	111	28				6.5	6.5	100		✓	100			✓	38	35	40	
3:00 P.M.	111	27				6.7	6.7	100		✓	100			✓	28	35	40	146
4:00 P.M.	111	28				6.7	6.7	100		✓	100			✓	39	35	40	147
5:00 P.M.	109	29				6.8	6.9	100		✓	100			✓	42	35	40	147
6:00 P.M.	111	33				6.7	6.7	100		✓	100			✓	38	35	40	147
7:00 P.M.	113	28				6.7	6.6	100		✓	100			✓	41	35	40	148
8:00 P.M.	113	33				6.7	6.6	100		✓	100			✓	40	35	40	148
9:00 P.M.	114	35				6.6	6.6	100		✓	100			✓	36	35	40	147
10:00 P.M.	113	24				6.7	6.6	100		✓	100			✓	40	35	40	147
11:00 P.M.	112	33				6.5	6.5	100		✓	100			✓	35	35	40	
12:00 P.M.																		

12-8 MM

8-4 DS

4-12 T. M.

REMARKS: AUG 16 1981 Comm made w/ Mattyasch 12:45 PM.

Mod. Exere. 6 Min.

200

	Grs Load (MW)	Regen Flow %	Office Use Only: P.H. Required	Chlorides	Avg. P.H.	North P.H.	South P.H.	Soda Ash Cont. Valve Set Point	Ash Control Valve (✓) Auto	(✓) Man	Soda Ash Control Valve Set Point	AUG 17 1981 (✓) If On: 601	602	603	Tank Level %	North Mod Damper Position	Mod Damper Position	Stack Temp
12:00 A.M.	117	27				6.5	6.5	100		✓	100			✓	40	36	40	144
1:00 A.M.	110	23				6.5	6.5	100		✓	100			✓	42	36	37	145
2:00 A.M.	112	32				6.5	6.5	100		✓	100			✓	38	36	37	148
3:00 A.M.	113	42				6.45	6.5	100		✓	100			✓	38	37	37	149
4:00 A.M.	113	46				6.5	6.5	100		✓	100			✓	37	37	37	146
5:00 A.M.	112	48				6.5	6.5	100		✓	100			✓	39	35	35	144
6:00 A.M.	113	49				6.5	6.5	100		✓	100			✓	38	35	35	148
7:00 A.M.	112	50				6.5	6.45	100		✓	100			✓	40	35	35	149
8:00 A.M.	117	50				6.45	6.45	100		✓	100			✓	40	35	35	151
9:00 A.M.	111	50				6.4	6.4	100		✓	100	on 10:30		✓	46	35	35	145
10:00 A.M.	116	58				6.45	6.4	100		✓	100	✓		✓	60	38	38	145
11:00 A.M.	113	60				6.5	6.5	100		✓	100	off 11:30	on 11:35 ✓	✓	78	38	38	146
12:00 P.M.	113	57				6.5	6.5	100		✓	100		off 12:46	✓	94	38	38	146
1:00 P.M.	112	52				6.5	6.5	100		✓	100			✓	96	38	40	146
2:00 P.M.	117	45				6.5	6.5	100		✓	100			✓	98	38	40	146
3:00 P.M.	110	44				6.7	6.7	100		✓	100			✓	92	38	40	147
4:00 P.M.	111	42				6.7	6.7	100		✓	100			✓	80	38	40	147
5:00 P.M.	112	42				6.7	6.7	100		✓	100			✓	76	38	40	147
6:00 P.M.	111	42				6.7	6.8	100		✓	100		on 7:52 PM	✓	70	38	40	147
7:00 P.M.	150	54				6.7	6.6	100		✓	100		✓	✓	66	55	55	141
8:00 P.M.	220	59				6.7	6.5	100		✓	100		✓	✓	64	55	55	143
9:00 P.M.	210	58				6.7	6.5	100		✓	100		✓	✓	54	55	55	149
10:00 P.M.	125	56				6.7	6.7	100		✓	100		off 11:45 PM	✓	50	40	40	151
11:00 P.M.	113	54				6.5	6.5	100		✓	100			✓	46	40	40	

12-8 M.D.

8-4 D.S.

4-12 T.M.

REMARKS: MOD. Dampers + MIST Elims. - Exercised -

" " 8-4

Mod. Exer. 7:40 PM

	Gross Load (MW)	Regen Flow %	Office Use Only: P.H. Required	Confirmed	Avg. P.H.	North P.H.	South P.H.	North Soda Ash Control Valve Set Point	Soda Ash Control Valve (✓) Auto	(✓) Man	Soda Ash Control Valve Set Point	Slakers (✓) AUG 18 1981 601	602	603	Surge Tank Level %	North Mod Damper Position	South Mod Damper Position	(73 R3, Stack Temp
00 A.M.	113	45				6.5	6.5	100		✓	100			✓	40	35	35	140
00 A.M.	112	53				6.5	6.5	100		✓	100			✓	39	35	35	148
00 A.M.	113	54				6.5	6.5	100		✓	100			✓	40	35	35	150
00 A.M.	115	55				6.5	6.5	100		✓	100			✓	40	35	35	151
00 A.M.	160	54				6.5	6.5	100		✓	100		ON 5:30 PM	✓	40	35	35	151
00 A.M.	190	57				6.45	6.45	100		✓	100		✓	✓	50	60	60	165X
00 A.M.	168	57				6.4	6.35	100		✓	100		✓	✓	50	45	45	137
00 A.M.	161	57				6.4	6.4	100		✓	100		✓	✓	44	45	45	141
00 A.M.	175	50				6.4	6.5	100		✓	100		✓	✓	50	50	50	145
00 A.M.	192	57				6.4	6.5	100		✓	100	ON @ 9:40 ✓	✓	✓	56	50	55	157
00 P.M.	250	58				6.3	6.4	100		✓	100	OFF @ 10:40	✓	✓	68	55	60	154
00 NOON	245	60				6.4	6.4	100		✓	100		✓	✓	66	55	55	147
00 P.M.	237	58				6.35	6.5	100		✓	100		✓	✓	64	55	55	155
00 P.M.	245	58				6.4	6.5	100		✓	100		✓	✓	58	55		156
00 P.M.	217	58				6.4	6.5	100		✓	100		✓	✓	57	55	55	147
00 P.M.	221	56				6.6	6.6	100		✓	100		✓	✓	36	56	60	144
00 P.M.	224	57				6.6	6.6	100		✓	100		✓	✓	41	55	55	200
00 P.M.	218	55				6.6	6.6	100		✓	100		✓	✓	36	55	55	150
00 P.M.	217	56				6.6	6.6	100		✓	100		✓	✓	34	55	55	150
00 P.M.	222	56				6.6	6.7	100		✓	100		✓	✓	34	55	55	151
00 P.M.	222	54				6.6	6.7	100		✓	100		✓	✓	33	55	55	152
00 P.M.	220	55				6.6	6.7	100		✓	100		OFF 10:30 ✓	OFF 11 P.M. ✓	30	55	55	150
00 P.M.	162	55				6.7	6.6	100		✓	100	ON 4 AM	ON 11:00 PM		32	45	45	148
00 P.M.	160	56				6.45	6.5	100		✓	100	✓	OFF 4 AM 11 PM		45	45	45	

12-8 MO

8-4 A.J.

T.M.

REMARKS: Operated Modern Plant Chem. @ 10:30 PM ✓

Mod. Excess 7 35 PM

	Gross Load (MW)	Oxygen Flow %	Office Use Only: P.H. Required	Compliance	Avg. P.H.	North P.H.	South P.H.	North Soda Ash Control Valve Set Point	Soda Ash Control Valve Auto	Soda Ash Control Valve Man	South Soda Ash Control Valve Set Point	Slakers (✓) If On 601	602	603	Silage Tank Level %	North Mod Damper Position	South Mod Damper Position	(73 RS) Stack T & M
00 A.M.	162	57				6.4	6.4	100		✓	100	✓		✓	47	45	45	150
00 A.M.	160	57				6.4	6.4	100		✓	100	✓		✓	50	45	45	150
00 A.M.	130	58				6.4	6.5	100		✓	100	✓		✓	55	45	45	142
00 A.M.	112	53				6.45	6.5	100		✓	100			✓	47	40	40	140
00 A.M.	112	53				6.5	6.5	100		✓	100			✓	33	35	35	147
00 A.M.	112	49				6.5	6.5	100		✓	100			✓	40	35	35	146
00 A.M.	130	50				6.5	6.5	100		✓	100			✓	38	35	35	148
00 A.M.	133	48				6.5	6.5	100		✓	100			✓	38	40	35	1
00 A.M.	150	56				6.45	6.4	100		✓	100			✓	40	40	40	15
00 A.M.	144	56				6.4	6.4	100		✓	100			✓	40	50	40	141
00 A.M.	174	57				6.4	6.4	100		✓	100	10 15 ✓		✓	40	50	50	147
00 Noon	174	56				6.4	6.4	100		✓	100	✓		✓	40	50	50	149
00 P.M.	181	56				6.4	6.4	100		✓	100	✓		✓	40	50	50	149
00 P.M.	245	57				6.4	6.4	100		✓	100	✓	Off 453	✓	40	60	60	147
00 P.M.	254	57				6.4	6.4	100		✓	100	✓	0%	✓	50	65	65	1.M
00 P.M.	260	50				6.5	6.5	100		✓	100	✓		✓	50	35	35	1--
00 P.M.	258	54				6.5	6.5	100		✓	100	✓		✓	64	35	35	212
00 P.M.	252	52				6.5	6.5	100		✓	100	✓		✓	74	35	35	210
00 P.M.	256	48				6.45	6.5	100		✓	100	✓		✓	80	35	35	211
00 P.M.	254	49				6.5	6.6	100		✓	100	✓		✓	85	35	35	211
00 P.M.	255	58				6.4	6.3	100		✓	100	✓		✓	81	35	35	211
00 P.M.	255	56				6.3	6.3	100		✓	100	✓		✓	54	60	60	162
00 P.M.	227	48				6.3	6.5	100		✓	100	✓		✓	35	60	60	458
00 P.M.	145	52				6.4	6.5	100		✓	100	✓		✓	36	60	60	449
															37	55	55	

12-9 MD

8-4 C.J.

Remarks: 530 Filter off @ 1:45 AM - Mod. Dampers & Mist Elims. Energized. On @ 3:15 AM - 601 Scales off @ 3:45 AM -

8-4 Exercised Mods - Mist Elim. 9:45 AM

Soda Ash Damper Open 5% Per KINNMAN - Mods Set At 35% Per Near.

	Gross Load (MW)	Regen Flow %	OFFICE USE ONLY: P.H. Required	OFFICE USE ONLY: Conductivity	OFFICE USE ONLY: Avg. P.H.	North P.H.	South P.H.	Soda Ash Control Value Set Point	Ash Control Valve (✓) Auto	Ash Control Valve (✓) Man	Soda Ash Control Value Set Point	Slakers (✓) AUG 20 1981 If On: 601	602	603	Surge Tank Level %	North Mod Damper Position	South Mod Damper Position	(73 RS) Stack Temp
12:00 A.M.	140	48				6.45	6.6	100		✓	100	✓		✓	47	40	40	141
4:00 A.M.	115	38				6.5	6.75	100		✓	100	✓		✓	60	35	35	150
8:00 A.M.	112	30				6.5	6.5	100		✓	100			✓	80	35	35	151
12:00 A.M.	117	35		.317		6.5	6.5	100		✓	100			✓	64	35	35	151
4:00 A.M.	120	35				6.5	6.5	100		✓	100			✓	56	35	35	156
8:00 A.M.	120	42				6.5	6.5	100		✓	100			✓	46	37	38	152
12:00 P.M.	155	47				6.5	6.5	100		✓	100			✓	37	50	50	150
4:00 P.M.	155	47				6.4	6.5	100		✓	100			✓	40	50	50	152
8:00 P.M.	153	47				6.4	6.4	100		✓	100			✓	39	55	55	142
12:00 A.M.	201	48				6.35	6.35	100		✓	100	OFF 650		✓	36	55	55	142
4:00 A.M.	249	50	X	.299		6.35	6.35	100		✓	100	✓		✓	45	60	60	170
8:00 A.M.	256	49	X			6.35	6.35	100		✓	100	✓		✓	42	60	60	166
12:00 P.M.	254	48	X			6.35	6.35	100		✓	100	✓		✓	40	70	70	164
4:00 P.M.	261	58				6.35	6.5	100		✓	100	✓		✓	37	70	100	163
8:00 P.M.	252	59				6.35	6.5	100		✓	100	✓		✓	38	70	100	147
12:00 P.M.	243	58		.307		6.3	6.5	100		✓	100	✓		✓	39	70	95	143
4:00 P.M.	*224	58				6.3	6.5	100		✓	100	✓		✓	36	70	75	142
8:00 P.M.	248	62				6.3	6.45	100		✓	100	✓		✓	39	70	95	143
12:00 P.M.	265	62				6.3	6.45	100		✓	100	✓		✓	37	80	80	145
4:00 P.M.	260	62				6.3	6.5	100		✓	100	✓		✓	37	80	80	147
8:00 P.M.	257	60				6.3	6.5	100		✓	100	✓		✓	27	80	50	143
12:00 A.M.	273	58				6.15	6.4	100		✓	100	✓		✓	20	70	70	143
4:00 A.M.	171	58				6.4	6.5	100		✓	100	OFF 650		✓	34	60	60	140
8:00 A.M.	110	56				6.6	6.8	100		✓	100			✓	24	60	60	140

12:00 110

8:00

AUG 20 1981

REMARKS: 601 Slakers on @ 2:10 PM - Moist Mists - Exercised - [illegible]

	Gross Load (MW)	Regen Flow %	P.H. Required	Continuous	Avg. P.H.	North P.H.	South P.H.	Ash Control Valve Set Point	Control Valve Auto	Control Valve Man	Ash Control Valve Set Point	(✓) If ON 601	602	603	Tank Level %	Mod Damp Position	Mod Damper Position	Stack T.E.
1:00 A.M.	111	58		.350		6.7	6.8	100		✓	100			✓	42	60	60	134
2:00 A.M.	111	56				6.7	6.9	100		✓	100			✓	36	40	40	134
3:00 A.M.	111	58				6.7	7.0	100		✓	100			✓	42	35	38	141
4:00 A.M.	112	44				6.8	6.8	100		✓	100			✓	46	35	38	143
5:00 A.M.	111	44				6.7	6.7	100		✓	100			✓	32	35	35	142
6:00 A.M.	111	43				6.6	6.6	100		✓	100			✓	36	35	35	148
7:00 A.M.	113	46				6.3	6.6	100		✓	100			✓	41	35	35	148
8:00 A.M.	110	43				6.65	6.5	100		✓	100			✓	46	35	35	148
9:00 A.M.	112	43				6.65	6.5	100		✓	100			✓	42	35	35	143
10:00 A.M.	138	45		.360		6.5	6.5	100		✓	100	@ 4:50		✓	48	65	50	141
11:00 A.M.	248	57				6.4	6.4	100		✓	100	✓		✓	56	70	60	147
12:00 Noon	251	57				6.5	6.5	100		✓	100	✓		✓	60	70	60	144
1:00 P.M.	238	58				6.5	6.5	100		✓	100	✓		✓	74	70	60	142
2:00 P.M.	241	58				6.5	6.5	100		✓	100	✓		✓	80	70	60	142
3:00 P.M.	238	57				6.45	6.5	100		✓	100	✓		✓	84	70	60	142
4:00 P.M.	240	57				6.5	6.5	100		✓	100	✓		✓	55	70	65	143
5:00 P.M.	247	57		.371		6.5	6.5	100		✓	100	✓		✓	53	70	65	145
6:00 P.M.	265	57				6.5	6.5	100		✓	100	✓		✓	56	70	65	148
7:00 P.M.	252	56				6.5	6.5	100		✓	100	✓		✓	60	70	70	150
8:00 P.M.	266	58				6.4	6.5	100		✓	100	✓		✓	55	70	70	147
9:30 P.M.	265	56				6.5	6.5	100		✓	100	✓		✓	39	70	70	148
10:00 P.M.	235	55				6.5	6.5	100		✓	100	✓		✓	34	70	70	145
11:00 P.M.	152	40				6.6	6.6	100		✓	100	11:10 P.M.		✓	46	60	60	138
12:00 P.M.	107	38				6.5	7.1	100		✓	100			✓	32	60	60	13

12-8 T. M.

8-4 G. S.

4-12 [illegible]

AUG 21 1981

REMARKS: Mod. Econ. 2:10 A.M. (S. Htg. Bypass closed 3:30 P.M.)

Mod. Econ. Mist Eliminat. (8-4 shift) +4-12

AUG 22 1991

	Gross Load (MW)	Regen Flow %	P.H. Required	Continuous	Avg. P.H.	North P.H.	South P.H.	Ash Control Valve Set Point	Control Valve (V) Auto	Control Valve (V) Man	Ash Control Valve Set Point	(V) IN ON 609	(V) IN ON 602	(V) IN ON 603	Tank Level %	Mod Damp Position	Mod Damper Position	Stack Temp
1:00 A.M.	111	32		.420		6.7	6.9	100		✓	100			—	44	35	35	144
2:00 A.M.	140	32				6.8	6.6	100		✓	100			✓	32	45	45	146
3:00 A.M.	112	29				6.7	6.7	100		✓	100			✓	38	45	45	146
4:00 A.M.	111	28				6.7	6.7	100		✓	100			—	37	35	35	156
5:00 A.M.	112	17				6.8	6.6	100		✓	100			✓	41	35	35	156
6:00 A.M.	112	16				6.8	6.6	100		✓	100			✓	48	35	35	157
7:00 A.M.	113	17				6.8	6.6	100		✓	100			✓	44	35	35	160
8:00 A.M.	111	30				6.5	6.7	100		✓	100			✓	35	35	35	160
9:00 A.M.	112	44				6.6	6.7	100		✓	100			✓	40	40	40	150
10:00 A.M.	112	45		.428		6.6	6.7	100		✓	100			✓	38	45	45	150
11:00 A.M.	110	45				6.6	6.7	100		✓	100			✓	38	42	42	145
12:00 Noon	132	47				6.6	6.7	100		✓	100			✓	38	48	48	155
1:00 P.M.	172	48				6.5	6.6	100		✓	100	✓		✓	43	53	53	165
2:00 P.M.	192	47				6.5	6.5	100		✓	100	✓		✓	48	58	58	152
3:00 P.M.	192	46				6.5	6.4	100		✓	100	✓		✓	38	58	58	140
4:00 P.M.	192	47				6.3	6.2	100		✓	100	✓		✓	37	58	58	142
5:00 P.M.	200	48				6.2	6.2	100		✓	100	✓		✓	41	65	65	144
6:00 P.M.	226	47		.428		6.3	6.2	100		✓	100	✓		✓	35	60	60	147
7:00 P.M.	216	55				6.2	6.2	100		✓	100	✓		✓	32	60	60	149
8:00 P.M.	192	55				6.3	6.3	100		✓	100	✓		✓	30	60	60	143
9:30 P.M.	173	54				6.3	6.3	100		✓	100	✓		✓	29	55	55	141
10:00 P.M.	127	54				6.3	6.5	100		✓	100	✓		✓	19	55	55	139
11:00 P.M.	110	51				6.3	6.5	100		✓	100	1040 PM		✓	32	55	55	137
12:00 P.M.	114	53				6.6	6.5	100		—	100			—	38	50	50	145

12-8 T.M.

8-4 T.O.

4-12

AUG 22 1991

Remarks: 2 Lod. Cycle. 2 9AM 3PM
S. SODA ASH BYPASS CLOSED 1130AM
601 ON 12:35 PM

	Gross Load (MW)	Recen Flow %	P.H. Required	Continuous	Avg. P.H.	North P.H.	South P.H.	Soda Ash Control Valve Set Point	Ash Control Valve (√) Auto	Ash Control Valve (√) Man	Soda Ash Control Valve Set Point	(√) AUG 23 1981 IF ON 601	602	603	Surge Tank Level %	North Mod Damp. Position	South Mod Damper Position	Stack Temp
12:00 A.M.	113	50				6.5	6.6	100		✓	100				38	35	35	145
1:00 A.M.	114	49		.428		6.5	6.6	100		✓	100				38	35	35	145
2:00 A.M.	111	50				6.6	6.7	100		✓	100			✓	39	35	35	151
3:00 A.M.	112	50				6.6	6.7	100		✓	100			✓	39	32	35	158
4:00 A.M.	113	50				6.6	6.7	100		✓	100			✓	42	32	35	160
5:00 A.M.	111	50				6.6	6.7	100		✓	100			✓	39	32	35	160
6:00 A.M.	113	50				6.6	6.7	100		✓	100			✓	41	32	35	158
7:00 A.M.	113	50				6.35	6.5	100		✓	100			✓	46	32	35	158
8:00 A.M.	113	51				6.3	6.5	100		✓	100			✓	40	33	35	160
9:00 A.M.	112	51		.407		6.4	6.5	100		✓	100			✓	42	40	40	148
10:00 A.M.	138	36				6.6	6.5	100		✓	100			✓	45	40	40	146
11:00 A.M.	170	47				6.5	6.5	100		✓	100			✓	44	45	45	146
12:00 P.M.	167	47				6.5	6.5	100		✓	100			✓	44	55	55	149
1:00 P.M.	190	54				6.55	6.55	100		✓	100	1:45 PM ✓		✓	40	52	52	141
2:00 P.M.	190	52				6.5	6.5	100		✓	100	✓		✓	38	55	55	142
3:00 P.M.	211	55				6.5	6.3	100		✓	100	✓		✓	42	55	55	147
4:00 P.M.	216	54				6.4	6.3	100		✓	100	✓		✓	45	65	65	149
5:00 P.M.	237	55				6.4	6.3	100		✓	100	✓		✓	40	70	70	144
6:00 P.M.	257	54				6.5	6.3	100		✓	100	✓		✓	38	70	70	145
7:00 P.M.	233	54				6.5	6.3	100		✓	100	✓		✓	36	70	70	149
8:00 P.M.	206	54				6.5	6.3	100		✓	100	✓		✓	32	70	70	147
9:00 P.M.	197	54				6.4	6.4	100		✓	100	✓		✓	35	60	60	145
10:00 P.M.	159	46				6.4	6.4	100		✓	100	✓		✓	39	60	60	147
11:00 P.M.	152	45				6.7	6.6	100		✓	100	OFF 10:15		✓	30	55	55	143
12:00 P.M.															32	55	55	145

12-8 L.M.

8-4 MO

Rooster

AUG 23 1981

REMARKS: MODS. & MISTS — Exercised — 12-8/8-4/4-12

207

	Gross Load (MW)	Regen Flow %	P.H. Required	Continuous	Avg. P.H.	North P.H.	South P.H.	ASH Control Valve Set Point	Control Valve (A)	Control Valve (M)	ASH Control Valve Set Point	AUG 24 1981 (✓) If ON 601	602	603	Tank Level %	Mod Dam. Position	Mod Damper Position	Stack Temp
12:00 A.M.	150	46				6.6	6.5	100		✓	100			✓	32	50	50	142
1:00 A.M.	146	45				6.6	6.6	100		✓	100			✓	36	45	45	148
2:00 A.M.	150	47				6.6	6.6	100		✓	100			✓	38	45	45	147
3:00 A.M.	150	45				6.6	6.6	100		✓	100			✓	32	40	40	152
4:00 A.M.	152	36				6.7	6.7	100		✓	100			✓	38	40	40	154
5:00 A.M.	151	37				6.8	6.7	100		✓	100		ON 602 AH	✓	40	40	40	154
6:00 A.M.	200	46				6.7	6.6	100		✓	100	✓	✓	✓	42	55	55	154
7:00 A.M.	220	51	↑			6.4	6.4	100		✓	100		✓	✓	38	55	55	154
8:00 A.M.	250	51				6.35	6.45	100		✓	100		✓	✓	37	75	75	152
9:00 A.M.	262	60	.350			6.3	6.3	100		✓	100		✓	✓	37	75	75	143
10:00 A.M.	260	62				6.3	6.3	100		✓	100		✓	✓	41	75	75	148
11:00 A.M.	260	62	↓			6.3	6.3	100		✓	100		✓	✓	42	75	75	149
12:00 P.M.	260	62				6.3	6.3	100		✓	100		✓	✓	43	75	75	148
1:00 P.M.	255	64				6.4	6.35	100		✓	100		✓	✓	50	75	75	148
2:00 P.M.	257	64				6.45	6.35	100		✓	100	✓		✓	54	75	75	149
3:00 P.M.	263	66				6.45	6.30	100		✓	100	✓		✓	56	75	75	150
4:00 P.M.	259	64				6.4	6.3	100		✓	100	✓		✓	53	80	80	148
5:00 P.M.	262	64				6.4	6.3	100		✓	100	✓		✓	48	80	80	147
6:00 P.M.	258	62				6.4	6.3	100		✓	100	✓		✓	42	80	80	148
7:00 P.M.	266	62				6.4	6.3	100		✓	100	✓		✓	40	80	80	150
8:00 P.M.	259	64				6.4	6.3	100		✓	100	✓		✓	39	80	80	149
9:00 P.M.	263	62				6.3	6.3	100		✓	100	✓		✓	38	80	80	148
10:00 P.M.	232	62				6.4	6.4	100		✓	100	✓		✓	39	60	60	147
11:00 P.M.	153	47				6.6	6.5	100		✓	100	OFF 1120		✓	38	55	55	151

AUG 24 1981 12:00 T. M.

P.M. MD

Remarks: MMod. Coccic. 5:30 A.M. (S. Regen Bypass 5 Rds open)
MODS. + MISTS. - Exercise 0 - 4 - 12

	Gross Load (MW)	Regen Flow %	Office Use Only: P.H. Required	Compliance	Avg. P.H.	North P.H.	South P.H.	North Soda Ash Control Valve Set Point	South Soda Ash Control Valve (✓) Auto	South Soda Ash Control Valve (✓) Man	Soda Ash Control Valve Set Point	Slakers (✓) If On: 601	602	603	Surge Tank Level %	North Mod Damper Position	South Mod Damper Position	(73 R Stac Tem
1:00 A.M.	153	46				6.6	6.6	100		✓	100			—	32	40	40	155
2:00 A.M.	150	47				6.6	6.6	100		✓	100			—	42	40	40	157
3:00 A.M.	150	47	.9	14		6.6	6.6	100		✓	100			✓	32	40	40	156
4:00 A.M.	170	48				6.6	6.5	100		✓	100		ON 2:30	✓	44	40	40	163
5:00 A.M.	176	48				6.6	6.6	100		✓	100		✓	✓	58	45	45	170
6:00 A.M.	173	53				6.5	6.5	100		✓	100		—	—	68	50	50	161
7:00 A.M.	173	60				6.5	6.6	100		✓	100	✓	—	—	80	53	53	149
8:00 A.M.	203	61				6.3	6.5	100		✓	100		✓	✓	91	53	53	151
9:00 A.M.	250	62				6.35	6.4	100		✓	100		✓	✓	95	75	75	157
10:00 A.M.	255	67	.38	9		6.3	6.25	100		✓	100		✓	✓	96	75	75	145
11:00 A.M.	255	70				6.25	6.35	100		✓	100		✓	✓	94	75	75	148
12:00 Noon	257	70				6.35	6.35	100		✓	100		✓	✓	94	75	75	148
1:00 P.M.	258	70				6.35	6.35	100		✓	100		✓	✓	94	75	75	150
2:00 P.M.	250	70				6.35	6.35	100		✓	100		✓	✓	94	75	75	146
3:00 P.M.	250	70				6.35	6.3	100		✓	100		✓	✓	94	70	70	145
4:00 P.M.	259	70				6.3	6.3	100		✓	100		✓	✓	94	75	75	151
5:00 P.M.	230	68	.27	7		6.4	6.4	100		✓	100		✓	✓	94	70	70	147
6:00 P.M.	179	68				6.4	6.5	100		✓	100		✓	✓	94	70	70	144
7:00 P.M.	155	50				6.4	6.3	100		✓	100		OFF 6:10PM	✓	86	60	60	143
8:00 P.M.	176	48				6.3	6.2	100		✓	100			✓	64	70	70	142
9:30 P.M.	170	44				6.3	6.1	100		✓	100			✓	40	70	70	142
10:00 P.M.	129	42				6.4	6.2	100		✓	100			✓	15	55	55	146
11:00 P.M.	111	44				6.4	6.3	100		✓	100			✓	26	55	55	139
12:00 P.M.	116	46				6.6	6.5	100		✓	100			✓	35	55	55	135

12-9 T. M.

8-4 TED

AUG 25 1981

REMARKS: MOD. DAMPERS-MIST ELIMS.-EXERCISE. DO 12:30 PM—
" " " " " 6:30 pm—

	Gross Load (MW)	Recirc Flow %	P.H. Required	Condenser	Avg. P.H.	North P.H.	South P.H.	N&S Control Valve Set Point	Control Valve Auto	Control Valve Man	N&S Control Valve Set Point	(✓) If On 601	602	603	Tank Level %	Mod Dmp Position	Mod Damper Position	Stack Temp
1:00 A.M.	114	45				6.7	6.7	100		✓	100				46	38	38	146
2:00 A.M.	112	47				6.7	6.7	100		✓	100				64	35	35	149
3:00 A.M.	112	46				6.7	6.7	100		✓	100				66	35	35	151
4:00 A.M.	112	46				6.7	6.7	100		✓	100				62	35	35	153
5:00 A.M.	113	46				6.7	6.6	100		✓	100				60	35	35	156
6:00 A.M.	111	46				6.7	6.7	100		✓	100		ON 6:15 AM		60	35	35	149
7:00 A.M.	111	47				6.7	6.7	100		✓	100			OFF 6:45 AM	84	35	35	148
8:00 A.M.	112	47				6.5	6.5	100		✓	100	ON 8:05 PM OFF 8:32 AM	OFF 7:30 AM	ON 7:30 AM 905 PM	90	35	35	149
9:00 A.M.		Scrubber off									905 PM							
10:00 A.M.																		
11:00 A.M.																		
12:00 P.M.																		
1:00 P.M.																		
2:00 P.M.																		
3:00 P.M.																		
4:00 P.M.	200																	
5:00 P.M.	199	38				6.4	6.5	100		✓	100	ON 5:05 PM			98	35	56	275
6:00 P.M.	197	50	OUT			6.4	6.2	100		✓	100	✓			99	35	56	233
7:00 P.M.	190	50	OUT			6.45	6.5	100		✓	100	✓			99	50	50	190
8:00 P.M.	180	52	OK			6.4	6.4	100		✓	100	✓			100	55	55	156
9:00 P.M.	166	36	OUT			6.5	6.5	100		✓	100	✓			100	55	55	147
10:00 P.M.	155	30	OUT			6.5	6.5	100		✓	100	✓			100	45	45	142
11:00 P.M.	119	26	OUT			6.55	6.5	100		✓	100	✓			100	35	35	149
12:00 P.M.	115	18	OUT			6.8	6.7	100		✓	100				100	35	35	156

AUG 26 1981

12-9 T. M.

8-4 TMD

1-9 8-4

REMARKS: Mod. Excess. 5:30 AM - 603 Shaker off @ 805 PM - 601 on @ 805 PM w/ 905 PM. South fan off @ 8:40 PM - North fan off @ 850 PM - Scrubber off for Maint. work on line transfer system - South ED Fan on @ 9:20 PM. Mod Excess 7:40 PM - No Mist Elim Because of High Surge Tank.

	Gross Load (MW)	Precen Flow %	Office Use Only: P.H. Required	Office Use Only: Comments	Office Use Only: Avg. P.H.	North P.H.	South P.H.	North Soda Ash Control Value Set Point	South Ash Control Value (A) Auto	South Ash Control Value (M) Man	Soda Ash Control Value Set Point	Slakers (✓) 60	Slakers 60	Slakers 60	Surge Tank Level %	North Mod Damper Position	South Mod Damper Position	(73 R) Stack Temp
00 A.M.	112	19	ok	.376	H	6.7	6.6	100		✓	100			—	100	40	40	156
00 A.M.	112	19	x	.317	(SO3)	6.8	6.6	100		✓	100			✓	100	40	40	148
00 A.M.	112	18	x			6.7	6.6	100		✓	100			✓	100	40	40	147
00 A.M.	114	20				6.7	6.6	100		✓	100			✓	100	40	40	148
00 A.M.	113	23				6.7	6.7	100		✓	100			✓	100	40	40	148
00 A.M.	114	23				6.7	6.7	100		✓	100			✓	100	40	40	145
00 A.M.	113	22				6.6	6.6	100		✓	100			✓	100	40	40	145
00 A.M.	113	23				6.5	6.5	100		✓	100			✓	100	40	40	143
00 A.M.	113	22				6.5	6.5	100		✓	100	on 850		850	100	40	40	143
00 A.M.	113	24		8.03		6.5	6.5	100		✓	100				100	40	40	142
00 A.M.			1		(SO3)													
00 Noon	113	22	x	.341		6.5	6.5	100		✓	100			✓	100	40	40	142
00 P.M.	113	22		.364	TOS	6.5	6.5	100		✓	100			✓	100	40	40	142
00 P.M.	113	21		.352		6.5	6.5	100		✓	100	✓			100	40	40	142
00 P.M.	112	23	x			6.5	6.5	100		✓	100	✓			100	40	40	142
00 P.M.	112	22			H	6.5	6.5	100		✓	100	✓			100	40	40	142
00 P.M.	116	38	OK	.76	(SO3)	6.5	6.5	100		✓	100	✓			100	40	40	142
00 P.M.	112	38	OK	.285		6.5	6.5	100		✓	100	✓			100	40	40	142
00 P.M.	111	37	OK			6.5	6.5	100		✓	100	✓			100	40	40	142
00 P.M.	110	37	OK			6.5	6.5	100		✓	100	✓			100	40	40	142
30 P.M.	112	40	OK			6.5	6.5	100		✓	100	✓			100	40	40	142
00 P.M.	114	30	ok		H	6.6	6.5	100		✓	100	✓			100	(0)	70 -	170
00 P.M.	112	35	ok	7.46	(SO3)	6.55	6.4	100		✓	100	✓	✓		100	40	40	157
00 P.M.	109	37	OK	.37	TOS	6.5	6.5	100		✓	100	✓			100	40	40	140

12-8 T.M. AUG 27 1981

3-4 7740

@ 2-1 st

REMARKS: Boiler Secure. 5' 30" Flame 2:10 PM

Mode Exam. 8:30 AM.

NORT FD FAN TROUBLE @ 10-11 PM

	Gross Load (MW)	'cgen Flow %	Office Use Only: P.H. Required	Confidence	Avg. P.H.	North P.H.	South P.H.	North Soda Ash Control Value Set Point	Ash Control Valve (✓) Auto	(✓) Man	South Soda Ash Control Value Set Point	Slakers (✓) AUG 28 1981 If any 601	602	603	Surge Tank Level %	North Mod Damper Position	South Mod Damper Position	(73 R) Stack Tem.
00 A.M.	116	36				6.5	6.5	100		✓	100	✓			100	40	40	140
:00 A.M.	110	35				6.5	6.5	100		✓	100	✓			100	40	40	141
:00 A.M.	116	38				6.5	6.5	100		✓	100	✓			100	40	40	143
:00 A.M.	110	42				6.5	6.5	100		✓	100	✓			100	40	40	142
:00 A.M.	113	44				6.5	6.5	100		✓	100	✓			100	40	40	142
:00 A.M.	113	34				6.5	6.5	100		✓	100	✓			100	40	40	140
:00 A.M.	114	41				6.5	6.5	100		✓	100	✓			100	40	40	138
:00 A.M.	112	45				6.5	6.5	100		✓	100	✓			100	40	40	137
:00 A.M.	113	48				6.5	6.5	100		✓	100	✓	✓		100	37	37	145
:00 A.M.	112	50				6.5	6.45	100		✓	100		✓		100	35	35	137
:00 P.M.	112	50				6.45	6.5	100		✓	100		✓		100	35	35	146
:00 P.M.	113	50				6.45	6.5	100		✓	100		✓		100	35	35	151
:00 P.M.	122	33				6.35	—	100		✓	—		✓		100	70	— *	147
:00 P.M.	—	—				—	—	—		—	—	—	—		—	—	—	—
:00 P.M.	122	33				6.3	—	100		✓	—		✓		100	70	—	145
:00 P.M.	121	35				6.35	6.5	100		✓	—		✓		100	70	—	145
:00 P.M.	119	37				6.4	6.5	100		✓	—		✓		100	80	—	155
:00 P.M.	121	48				6.4	6.45	100		✓	—		✓		100	80	—	147
:00 P.M.	117	46				6.5	6.5	100		✓	100		✓		100	40	40	151
3:00 P.M.	114	42				6.5	6.5	100		✓	100		✓		100	40	40	
7:30 P.M.	116	28				6.5	6.5	100		✓	100		✓		100	40	40	144
0:00 P.M.	117	25				6.5	6.5	100		✓	100	off 9:15	off 8:10		100	0	0	190
:00 P.M.	114	45				6.45	6.5	100		✓	100	✓			98	40	40	150
:00 P.M.	120	50				6.4	6.5	100		✓	100	✓		✓	93	40	40	145

12:00 Roster

8:00 TMD

AUG 28 1981

Remarks: mod dampers 12:30 AM — & 9:45 AM — (for 12 Lwer)

* - South Scrubber fan off @ 17:35 PM + oil Turning Gear.

South FD Fan on @ 6:10 PM Elec mods 8:30 PM

	Gross Load (MW)	Regen Flow %	Office Use Only: P.H. Required	Office Use Only: Comments	Office Use Only: Avg. P.H.	North P.H.	South P.H.	North Soda Ash Control Valve Set Point	South Soda Ash Control Valve (O) (C) Auto	South Soda Ash Control Valve (O) (C) Man	Soda Ash Control Valve Set Point	Slakers (✓) AUG 29 1981 601	Slakers 602	Slakers 603	Surge Tank Level %	North Mod Damper Position	South Mod Damper Position	(73 R) Stack Temp
12:00 A.M.	115	50				6.4	6.5	100		✓	100	✓		✓	95	40	40	143
1:00 A.M.	114	48				6.4	6.5	100		✓	100	✓		one 120Am	96	40	40	144
2:00 A.M.	118	50				6.5	6.5	100		✓	100	✓	✓		78	45	45	139
3:00 A.M.	112	46				6.5	6.5	100		✓	100	✓	✓		80	40	40	138
4:00 A.M.	110	48				6.5	6.5	100		✓	100	✓	✓		65	40	40	137
5:00 A.M.	106	48				6.5	6.5	100		✓	100	✓	✓		60	40	40	136
6:00 A.M.	110	46				6.5	6.5	100		✓	100	✓			39	40	40	139
7:00 A.M.	107	44				6.7	6.7	100		✓	100	✓			36	40	40	144
8:00 A.M.	109	43				6.7	6.7	100		✓	100	✓			35	40	40	142
9:00 A.M.	106	43				6.7	6.7	100		✓	100	✓			37	40	40	141
10:00 A.M.	123	47				6.7	6.6	100		✓	100	✓			36	50	50	146
11:00 A.M.	145	47				6.7	6.5	100		✓	100	✓			35	50	50	149
12:00 P.M.	153	46				6.7	6.5	100		✓	100	✓	✓		31	60	60	147
1:00 P.M.	127	46				6.7	6.7	100		✓	100		✓	✓	34	30	30	177
2:00 P.M.	205	33				6.6	7.2	100		✓	100	✓	✓		50	70	70	177
3:00 P.M.	217	45				6.3	6.15	100		✓	100	✓	✓		30	70	70	144
4:00 P.M.	228	45				6.3	6.2	100		✓	100	✓	✓		38	70	70	160
5:00 P.M.	224	50				6.4	6.5	100		✓	100	✓	✓		26	70	40	165
6:00 P.M.	224	57				6.35	6.4	100		✓	100	✓	✓		38	70	70	159
7:00 P.M.	219	58				6.4	6.5	100		✓	100	✓	✓		34	50	50	146
8:00 P.M.	186	56				6.5	6.5	100		✓	100	✓	✓	no 9:30 ✓	52	50	50	139
9:00 P.M.	191	57				6.45	6.5	100		✓	100	✓	✓	✓	54	50	50	149
10:00 P.M.	145	55				6.5	6.5	100		✓	100	✓	✓	✓ 10:00	52	50	50	142
11:00 P.M.	135	52				6.5	6.17	100		✓	100	✓	✓		41	45	45	141

12:00 [signature] AUG 29 1981

9:4 Smith

Remarks: mod damper at 1230AM / 2:30PM.
601 on 12:10 PM LINE TRANSFER PROBLEMS 2 PM
Mode Exit 8:20 PM.

	Gross Load (MW)	Regen Flow %	Office Use Only: P.H. Required	Confidence	Avg. P.H.	North P.H.	South P.H.	Soda Ash Control Valve Set Point	Ash Control Valve (✓) Auto	Ash Control Valve (✓) Man	Soda Ash Control Valve Set Point	Slaked (✓) If On: 601	602	603	Surge Tank Level %	North Mod Damper Position	South Mod Damper Position	173 Rx Stack Temp
00 A.M.	107	42				6.5	6.5	100		✓	100	✓	off 1245		38	45	45	139
00 A.M.	109	44				6.5	6.5	100		✓	100	✓			30	45	45	138
00 A.M.	107	45				6.5	6.5	100		✓	100	✓			28	40	40	139
00 A.M.	109	44				6.5	6.5	100		✓	100	✓	on 1230		26	40	40	140
00 A.M.	108	46				6.5	6.5	100		✓	100	off 440	✓		41	40	40	140
00 A.M.	110	46				6.5	6.5	100		✓	100	on 550	off 550		44	40	40	141
00 A.M.	114	48				6.5	6.5	100		✓	100	✓			38	40	40	138
00 A.M.	113	45				6.7	6.7	100		✓	100	✓			38	40	40	139
00 A.M.	112	38				6.7	6.7	100		✓	100	✓			38	36	36	145
00 A.M.	112	43				6.7	6.7	100		✓	100	✓	on 10:00 AM		34	36	36	146
00 A.M.	112	45				6.7	6.7	100		✓	100	✓	✓		37	36	36	147
00 Noon	170	50				6.7	6.7	100		✓	100	✓	✓		39	47	47	145
00 P.M.	200	48				6.7	6.6	100		✓	100	✓	✓		42	48	43	159
00 P.M.	200	54				6.7	6.6	100		✓	100	✓	✓		39	48	48	160
00 P.M.	200	54				6.7	6.5	100		✓	100	✓	✓		39	54	54	153
00 P.M.	212	55				6.4	6.4	100		✓	100	✓	✓		38	55	55	147
00 P.M.	213	50				6.4	6.35	100		✓	100	✓	✓		40	55	55	147
00 P.M.	215	46				6.4	6.3	100		✓	100	✓	✓		40	55	55	145
00 P.M.	200	54				6.4	6.35	100		✓	100	✓	✓		42	50	50	141
00 P.M.	192	54				6.35	6.5	100		✓	100	✓	✓		38	45	50	151
30 P.M.	195	52				6.3	6.5	100		✓	100	✓	✓		40	40	45	164
00 P.M.	188	54				6.35	6.4	100		✓	100	✓	✓		38	50	55	151
00 P.M.	145	50				6.45	6.4	100		✓	100	✓	✓		40	40	40	145
00 P.M.	109	48				6.4	6.5	100		✓	100	✓			39	40	40	141

12-8 [signature] AUG 30 1981

8-4 T.M.

Remarks: Mod dampers 1230AM / 7:00 Good. Excess. 10 PM Mist. Rain 11 PM Mods Stuck Mist rain

	Gross Load (MW)	Recen Flow %	P.H. Required	Continuous	Avg. P.H.	North P.H.	South P.H.	Soda Ash Control Value Set Point	Ash Control Valve (V) Auto	Ash Control Valve (V) Man	Ash Control Value Set Point	(√) If On 601	602	603	Tank Level %	North Mod Damp. Position	Mod Damper Position	Stack Temp.
12:00 AM	107	44				6.4	6.5	100		✓	100				38	40	40	141
1:00 AM	107	48				6.4	6.5	100		✓	100	✓			39	40	40	140
2:00 AM	107	46				6.4	6.5	100		✓	100	✓	off 2:10		39	40	40	140
3:00 AM	104	44	X			6.4	6.5	100		✓	100	✓	✓		41	20*	20*	140
4:00 AM	106	42				6.3	6.5	100		✓	100	✓			43	20*	20*	139
5:00 AM	113	42				6.3	6.5	100		✓	100	✓	off 4:15		64	50	50	169
6:00 AM	107	48				6.4	6.5	100		✓	100	✓			53	50	50	137
7:00 AM	110	46				6.5	6.7	100		✓	100	–			37	40	40	138
8:00 AM						6.5	6.6	100		–	100	–			39	40	40	139
9:00 AM	104	42				6.7	6.7	100		–	100	–			38	38	38	142
10:00 AM	115	44				6.8	6.6	100		✓	100	–	on 10:30		36	38	38	143
11:00 AM	190	60				6.6	6.6	100		✓	100	–	–		38	45	45	145
12:00 PM	190	60				6.5	6.6	100		✓	100	✓	–		39	50	50	147
1:00 PM	260	63				6.5	6.5	100		–	100	–	–		46	60	60	156
2:00 PM	260	63				6.5	6.5	100		–	100	–	–		41	60	60	167
3:00 PM	260	63				6.5	6.5	100		✓	100	✓	✓		41	68	68	156
4:00 PM	239	65				6.4	6.4	100		✓	100	off 4:45	✓	on 4:37	40	70	70	151
5:00 PM	196	45	Lime Transfer Plugged			6.5	6.8	100		✓	100		✓	off 5:40	50	60	60	149
6:00 PM	168	30				6.6	6.7	100		✓	100	off 6:50 ✓	✓		56	0	0	149
7:00 PM	163	36				6.45	6.45	100		✓	100	✓	✓		92	50	50 -	186
7:30 PM	145	54				6.5	6.4	100		✓	100	✓	✓		98	50	50 -	177
9:00 PM	121	50				6.4	6.5	100		✓	100	✓	off 10:30		96	50	45	146
10:00 PM	110	50				6.4	6.5	100		✓	100	✓			98	40	40	145
11:00 PM	110	41				6.4	6.5	100		✓	100	✓			98	40	40	147
12:00 AM															97	40	40	152

12:00 [illegible] AUG 31 1982

1:00 T. M.

REMARKS: mod damper 2:00 - 12:30 AM / lime transfer unplugged

Load Service 10 [illegible] MW (N.B. Soda bypass valve).

	Gross Load (MW)	Regen Flow %	P.H. Required	Confidence	Avg. P.H.	North P.H.	South P.H.	Soda Ash Control Valve Set Point	Ash Control Valve (✓) Auto	Ash Control Valve (✓) Man	Soda Ash Control Valve Set Point	Searched (✓) SEP 1 1981 601	602	603	Tank Level %	North Mod Damp. Position	South Mod Damper Position	Stack Temp
00 A.M.	110	52				6.4	6.5	100		✓	100	✓			91	50	50	143
00 A.M.	110	50		7.37	pH	6.5	6.4	100		✓	100	✓			77	50	50	138
00 A.M.	114	48		3.68	SO_3	6.5	6.4	100		✓	100	✓			54	45	45	138
00 A.M.	111	46				6.3	6.3	100		✓	100	✓			36	40	40	139
00 A.M.	110	46				6.3	6.3	100		✓	100	✓			39	40	40	142
00 A.M.	110	46				6.5	6.3	100		✓	100	✓	ON 6:20 AM		36	40	40	143
	110	46				6.5	6.3	100		✓	100	✓			60	50	50	142
						6.6	6.4	100		✓	100	—		✓	68	50	50	136
							6.7	100		✓	100	✓		OFF 4:25 PM	98	3.8	3.8	150
						6.7	6.7	100		✓	100	✓			94	36	36	147
						6.7	6.7	100		✓	100	✓			92	36	36	147
						6.7	6.7	100		✓	100	✓			92	36	36	147
						6.7		100		✓	100	—	ON 2:00 PM		56	36	36	147
						6.7	6.7	100		✓	100	—	—		48	36	36	147
						6.7		100		✓	100	—	✓		46	36	36	147
						6.7		100		✓	100	✓	✓		40	50	50	147
								100		✓	100	✓	✓		47	45	45	147
								100		✓	100	✓	ON 4:00 PM		54	40	40	147
								100		✓	100	✓			40	40	40	147
						6.5		100		✓	100	✓			40	40	40	150
								100		✓	100	✓			34	40	40	147
	32							100		✓	100	✓			33	40	40	
	30					6.7		100		✓	100	✓	✓		33	40	40	
								100		✓	100	✓			34	40	40	

216

	Gross Load (MW)	Regen Flow %	Office Use Only: P.H. Required	Consumer	Avg. P.H.	North P.H.	South P.H.	Soda Ash Control Valve Set Point	Ash Control Valve (✓) Auto	(✓) Man	Soda Ash Control Valve Set Point	Slakers SEP 2 1981 (✓) If On: 601	602	603	Surge Tank Level %	North Mod Damper Position	South Mod Damper Position	(73 R3 Stack Temp
12:00 AM	107	36				6.5	6.5	100		✓	100	✓	/		31	40	40	145
1:00 AM	111	38				6.5	6.5	100		✓	100	✓	/		38	46	45	140
2:00 AM	110	45				6.4	6.5	100		✓	100	✓	/		46	45	45	139
3:00 AM	111	40				6.5	6.5	100		✓	100	✓	/		64	45	45	146
4:00 AM	109	44				6.4	6.5	100		✓	100	/			59	50	50	143
5:00 AM	110	41				6.5	6.5	100		✓	100	✓	/		56	50	50	136
6:00 AM	114	41				6.5	6.5	100		✓	100	✓	/		48	40	40	140
7:00 AM	110	36				6.7	6.7	100		✓	100	/			45	40	38	145
8:00 AM	110	40				6.6	6.7	100		✓	100	✓			39	36	36	146
9:00 AM	110	42				6.7	6.7	100		✓	100	/			40	36	36	147
10:00 AM	110	43				6.6	6.7	100		✓	100	/			42	36	36	143
11:00 AM	110	43				6.7	6.7	100		✓	100	/			34	40	40	147
12:00 PM	110	42				6.6	6.6	100		✓	100	/			22	43	43	139
1:00 PM	107	42				6.6	6.6	100		✓	100	/	ON 330		24	43	43	138
2:00 PM	108	42				6.7	6.6	100		✓	100	/	/		32	43	43	138
3:00 PM	109	42				6.45	6.4	100	✓		100	✓	✓		42	43	43	139
4:00 PM	108	40				6.5	6.43	100	✓		100	✓	✓		41	43	43	139
5:00 PM	107	40				6.5	6.5	100	✓		100	✓	✓		44	43	43	138
6:00 PM	108	41				6.5	6.5	100	✓		100	✓	✓		40	42	42	139
7:00 PM	109	42				6.5	6.5	100	✓		100	✓	✓		40	42	42	139
8:00 PM	108	42				6.45	6.5	100	✓		100	✓	✓		40	42	42	139
9:00 PM	108	42				6.5	6.5	100	✓		100	✓	✓		40	42	43	138
10:00 PM	108	44				6.5	6.5	100	✓		100	✓	✓		40	43	43	138
11:00 PM	107	44				6.5	6.5	100	✓		100	✓	✓		39	40	40	138

12:00 AM SEP 2 1981

Remarks: coal dumper malfunction 12:30 PM / Fuel transducer problems all night long

Pulv. Fuse - 10:45 PM

217

	Gross Load (MW)	Recirc Flow %	P.H. Required	Comments	Avg. P.H.	North P.H.	South P.H.	Ash Control Valve Set Point	Control Valve (✓) AUTO	Control Valve (✓) MAN	Ash Control Valve Set Point	(✓) SEP 3 0 1981 601	602	603	Tank Level %	Mon Damper Position	Mod Damper Position	Stack Temp
12:00 AM	108	44				6.4	6.5	100		✓	100	✓			32	45	45	137
1:00 AM	109	44				6.5	6.4	100		✓	100	✓			37	45	45	136
2:00 AM	108	44				6.5	6.3	100		✓	100	✓			40	45	45	136
3:00 AM	108	34				6.5	6.5	100		✓	100	✓		✓	55	20	20	161
4:00 AM	110	18				6.5	6.5	100		✓	100	EMPTY	✓	EMPTY	59	20	20	182
5:00 AM	107	26				6.5	6.5	100		✓	100	"	✓	"	40	70	70	215
6:00 AM	107	39				6.5	6.5	100		✓	100	✓			32	40	40	183
7:00 AM	110	43				6.4	6.5	100		✓	100	✓		✓	38	40	40	142
8:00 AM	110	45				6.4	6.4	100		✓	100	✓		✓	54	45	45	137
9:00 AM	110	44				6.5	6.5	100		✓	100	✓		OFF 10:25A	74	45	45	136
10:00 AM	109	30				6.4	6.5	100		✓	100	✓			80	45	45	136
11:00 AM	102	29				6.5	6.5	100		✓	100	✓			66	45	45	136
12:00 PM	110	19				6.6	6.7	0		✓	0	OFF 12:38 PM	For DE @ 11		56	0	0	186
1:00 PM	116	13				6.6	6.8	0		✓	0	----	----	ON 4:58	118	0	0	249
2:00 PM	115	13				6.5	6.6	0		✓	0				44	45	45	
3:00 PM	117	39				6.45	6.7	100		✓	100			✓	8	45	45	143
4:00 PM	110	43				6.45	6.45	100		✓	100	ON 5:45 PM ✓		OFF 6:15	40	45	45	140
5:00 PM	112	43				6.45	6.5	100		✓	100	✓			40	45	45	139
6:00 PM	112	42				6.45	6.5	100		✓	100	✓			40	47	47	139
7:00 PM	113	43				6.45	6.5	100		✓	100				38	49	50	139
8:00 PM	109	42				6.5	6.5	100		✓	100	OFF 8:40 PM ✓		ON 9:00 PM ✓	40	50	50	136
9:00 PM	109	43				6.5	6.5	100		✓	100			✓	30	50	50	138
10:00 PM	109	42				6.45	6.4	100		✓	100			✓	30	50	50	137
11:00 PM	106	42				6.4	6.35	100		✓	100			✓	42	45	45	132

12-9 Hourly Vo [illegible] P.M.

3-4 T 11

REMARKS: Dampers & SOOT ASH REG EXERC 12 30 pm / Fine X-ducers plugged. RANGOIL Clamp On Diam 603-602 - Lingtrans back in service 630. Soda Bypass Open - Blow Down Exerc. 11:45 A.M. - 12:15 P.M. Soda off 12:30 PM

	GRC LOAD (MW)	REGEN FLOW %	OFFICE USE ONLY P.H. REQUIRED	OFFICE USE ONLY COMPLIANCE	OFFICE USE ONLY AVG. P.H.	NORTH P.H.	SOUTH P.H.	NORTH SODA ASH CONTROL VALVE SET POINT	SODA ASH CONTROL VALVE (✓) AUTO	SODA ASH CONTROL VALVE (✓) MAN	SODA ASH CONTROL VALVE SET POINT	SEP 4 1981 (✓) IF ON 601	602	603	SURGE TANK LEVEL %	NORTH MOD DAMPER POSITION	SOUTH MOD DAMPER POSITION	(73 R. STAC. TEM
12:00 AM	108	43				6.4	6.4	100		✓	100			✓	26	45	45	136
1:00 AM	109	44				6.4	6.4	100		✓	100			✓	40	45	45	139
2:00 AM	108	44		8.01		6.35	6.35	100		✓	100			✓	36	40	40	139
3:00 AM	109	43		.332		6.4	6.35	100		✓	100			✓	20	40	40	141
4:00 AM	112	43		8.01		6.35	6.35	100		✓	100			✓	24	40	40	142
5:00 AM	111	44		.332		6.4	6.45	100		✓	100	on 6:40 AM		4564?	38	X 0	0	174
6:00 AM	112	44				6.4	6.5	100		✓	100	✓		✓	42	X 0	0	216
7:00 AM	110	44				6.5	6.4	100		✓	100				58	X 0	0	215
8:00 AM	109	44				6.4	6.4	100		✓	100	✓			64	X 0	0	210
9:00 AM	108	40				6.6	6.5	100		✓	100	✓			58	X 0	0	210
10:00 AM	106	39		7.27		6.6	6.5	100		✓	100	✓			46	X 0	0	210
11:00 AM	111	40		7.26		6.5	6.5	100		✓	100	✓			38	40	40	215
12:00 PM	108	41		.28		6.4	6.4	100		✓	100	✓			31	40	40	150
1:00 PM	110	41				6.4	6.2	100		✓	100	✓			19	45	45	150
2:00 PM	104	35				6.5	6.5	100		✓	100	✓			21	X 0	0	210
3:00 PM	109	40		8.07	7.44	6.45	6.3	100		✓	100	✓			28	X 45	45	174
4:00 PM	110	42		.306	.306	6.4	6.3	100		✓	100	✓			42	50	50	139
5:00 PM	111	42				6.35	6.4	100		✓	100	✓			35	52	52	138
6:00 PM	110	42				6.4	6.4	100		✓	100	✓			33	52	52	138
7:00 PM	111	43				6.35	6.4	100		✓	100	✓			40	52	52	137.5
8:00 PM	110	40				6.35	6.4	100		✓	100	✓		on 9:30P ✓ off 9:50P	41	52	52	137.5
9:00 PM	112	40				6.3	6.5	100		✓	100	✓			80	52	52	137
10:00 PM	111	39				6.3	6.5	100		✓	100	✓			80	52	52	136
11:00 PM	111	41		8.24		6.3	6.5	100		✓	100	✓			90	50	50	136

.306

REMARKS: Standard mode 2:12 a.m.
Closed Pinole @ 5:30 AM due to high tide in thickener and only one truck.
Operated Red Dauger 5:30 pm

	Load (MW)	Recen Flow %	P.H. Required	Conductivity	Avg. P.H.	North P.H.	South P.H.	ASH Control Valve Set Point	Control Valve (✓) Auto	Control Valve (✓) Man	ASH Control Valve Set Point	(✓) SEP 5 1991 IF ON 601	602	603	Tank Level %	Mod Damper Position	Mod Damper Position	Stack Temp
12:00 AM	109	48		8.24		6.35	6.5	100		✓	100				86	45	45	135
1:00 AM	113	46		306		6.35	6.5	100		✓	100	✓			68	40	45	136
2:00 AM	111	44				6.35	6.5	100		✓	100	✓			38	40	45	138
3:00 AM	109	41				6.35	6.5	100		✓	100	✓			32	40	45	139
4:00 AM	114	43				6.4	6.5	100		✓	100	✓			28	40	45	142
5:00 AM	113	43				6.4	6.5	100		✓	100	✓			27	40	45	144
6:00 AM	116	43				6.4	6.5	100		✓	100	✓			30	40	45	142
7:00 AM	111	43				6.4	6.5	100		✓	100	✓			33	34	45	140
8:00 AM	112	44				6.4	6.5	100		✓	100	✓			48	34	45	140
9:00 AM	111	43		9.75		6.4	6.5	100		✓	100	✓			42	34	45	139
10:00 AM	111	45		.332		6.4	6.5	100		✓	100	✓			60	35	45	139
11:00 AM	110	43				6.4	6.5	100		✓	100	✓			48	35	45	139
12:00 PM	111	42				6.5	6.5	100		✓	100	✓			42	35	45	140
1:00 PM	111	40				6.5	6.5	100		✓	100	✓			58	35	45	140
2:00 PM	112	34				6.5	6.5	100		✓	100	✓			52	35	45	141
3:00 PM	111	37				6.5	6.5	100		✓	100	✓			38	50	50	141
4:00 PM	118	41		6.47		6.5	6.5	100		✓	100	✓			30	50	50	142
5:00 PM	147	42		.327		6.45	6.4	100		✓	100	✓			21	52	50	143
6:00 PM	158	43				6.4	6.35	100		✓	100	✓	✓	✓	40	50	50	140
7:00 PM	113	43				6.4	6.4	100		✓	100	✓	✓		38	48	48	141
8:00 PM	114	43				6.4	6.4	100		✓	100	✓	✓		40	48	48	140
9:00 PM	114	42				6.4	6.5	100		✓	100	✓		✓	50	47	47	139
10:00 PM	113	42				6.45	6.5	100		✓	100	✓		✓	38	47	47	136
11:00 PM	110	36				6.5	6.5	100		✓	100	✓			52	X-0	40	170

12-5 M P

9-4 TM

REMARKS: 4:30pm Changed [illegible] to working point / 5:30pm Changed [illegible] / 6:03 pm. 603 Changed [illegible] / 11:35pm Changed [illegible] / Mid Annual Check @ 11:35pm, Started PM [illegible]

	Gro. Load (MW)	Regen Flow %	Office Use Only P.H. Required	Conductivity	Avg. P.H.	North P.H.	South P.H.	North Soda Ash Control Valve Set Point	Soda Ash Control Valve (✓) Auto	(✓) Man	South Soda Ash Control Valve Set Point	Slakers SEP 6 1981 (✓) If On 601	602	603	Surge Tank Level %	North Mod Damper Position	South Mod Damper Position	(73 R. Stac Tem
12:00 A.M.	107	35				6.4	6.5	100		✓	100	✓			64	40	40	141
1:00 A.M.	107	35		8.47		6.4	6.5	100		✓	100	✓			72	40	40	138
2:00 A.M.	111	37		.327		6.4	6.5	100		✓	100	✓			60	40	45	138
3:00 A.M.	110	44				6.35	6.5	100		✓	100	✓			60	40	45	136
4:00 A.M.	108	46				6.35	6.4	100		✓	100	✓			61	40	45	135
5:00 A.M.	109	48				6.35	6.5	100		✓	100	✓			70	40	45	135
6:00 A.M.	110	47				6.35	6.5	100		✓	100	✓			52	40	45	134
7:00 A.M.	114	44				6.3	6.5	100		✓	100	✓			40	45	45	134
8:00 A.M.	100	44				6.4	6.5	100		✓	100	✓			53	45	45	137
9:00 A.M.	109	42				6.4	6.5	100		✓	100	✓			58	40	40	137
10:00 A.M.	109	40		7.76		6.4	6.5	100		✓	100	✓			42	40	40	NA
11:00 A.M.	104	40		.364		6.4	6.5	100		✓	100	✓			40	40	40	136
12:00 P.M.	108	40				6.4	6.5	100		✓	100	✓			39	40	40	137
1:00 P.M.	109	41				6.4	6.5	100		✓	100	✓			38	45	45	136
2:00 P.M.	105	40				6.4	6.5	100		✓	100	✓			38	45	45	136
3:00 P.M.	116	40		7.75		6.35	6.5	100		✓	100	✓			40	45	45	134
4:00 P.M.	120	40		.386		6.35	6.5	100		✓	100	✓			40	45	45	139
5:00 P.M.	112	40				6.35	6.5	100		✓	100	✓			40	47	47	139
6:00 P.M.	104	40				6.4	6.5	100		✓	100	✓			40	45	45	138
7:00 P.M.	108	40				6.4	6.5	100		✓	100	✓			40	45	45	139
8:00 P.M.	109	40				6.4	6.5	100		✓	100	✓			38	45	45	138
9:00 P.M.	107	40				6.35	6.5	100		✓	100	✓			40	45	45	137
10:00 P.M.	104	40				6.5	6.5	100		✓	100	✓			40	45	45	137
11:00 P.M.	108	40				6.5	6.5	100		✓	100	✓			40	45	45	136

12:8 (1.)
8.4 (2) Start

Remarks: 8/11 - 1 Mod. @ 3:05 P.M.
" " @ 9:25 P.M.

	Cross Load (MW)	Regen Flow %	P.H. Required	Conductivity	Avg. P.H.	North P.H.	South P.H.	ASH Control Valve Set Point	Control Valve (✓) Auto	Control Valve (✓) Man	ASH Control Valve Set Point	SEP 7 1981 (✓) IF ON 601	602	603	Tank Level %	Mod Dmp Position	Mod Damper Position	Stack Temp
12:00 AM	107	40				6.4	6.5	100		✓	100	✓			40	40	40	130
1:00 AM	108	38		7.75		6.4	6.5	100		✓	100	✓			38	40	40	136
2:00 AM	108	40		.386		6.35	6.5	100		✓	100	✓			40	40	40	135
3:00 AM	108	40				6.4	6.5	100		✓	100	✓			40	40	40	135
4:00 AM	109	42				6.35	6.5	100		✓	100	✓	on @ 4:30		40	40	40	135
5:00 AM	111	40				6.35	6.5	100		✓	100	✓	✓		40	40	40	135
6:00 AM	108	39				6.4	6.5	100		✓	100	✓	✓		38	40	40	135
7:00 AM	110	38				6.5	6.5	100		✓	100	✓	✓		38	40	40	135
8:00 AM	110	40				6.3	6.5	100		✓	100	✓	✓		42	40	40	135
9:00 AM	107	37		7.79		6.5	6.5	100		✓	100	✓	✓		45	40	40	135
10:00 AM	106	38		.442		6.5	6.5	100		✓	100	✓	✓		40	40	40	136
11:00 AM	130	40				6.5	6.5	100		✓	100	✓	✓		40	40	40	137
12:00 PM	128	44				6.5	6.5	100		✓	100	✓	✓		38	40	40	142
1:00 PM	139	44				6.5	6.5	100		✓	100	✓	✓		38	45	45	143
2:00 PM	148	42				6.5	6.4	100		✓	100	✓	✓		38	45	45	157
3:00 PM	167	42		7.83		6.5	6.4	100		✓	100	✓	✓		40	50	50	142
4:00 PM	195	42		.413		6.5	6.5	100		✓	100	✓	✓		38	52	52	153
5:00 PM	172	43				6.5	6.5	100		✓	100	✓	off for pump maintenance		40	50	50	149
6:00 PM	163	44				6.5	6.5	100		✓	100	✓	on b/c cooler	✓	42	50	50	145
7:00 PM	150	44				6.5	6.5	100		✓	100	✓		✓	44	52	50	142
8:00 PM	144	44				6.45	6.4	100		✓	100	✓		✓	38	45	45	143
9:00 PM	140	43				6.45	6.4	100		✓	100	✓		✓	40	45	45	142
10:00 PM	136	43				6.45	6.4	100		✓	100	✓		✓	38	45	45	141
11:00 PM	132	44				6.5	6.5	100		✓	100	✓		✓	39	45	45	141
12:00 AM						6.45	6.5	100		✓	100	✓		✓	42	45	45	

12-8 J. J.

8-4 [illegible]

D.D.

REMARKS: 4 fire 11 [illegible] 4 [illegible] 8:30AM

6:30 PM mid Dungee Wrench off Time transfer time Peggy Lyg / mid Dungee gen 7:10 PM

	LOAD (MW)	OXYGEN FLOW %	P.H. REQUIRED	CONDUCTIVITY	AVG. P.H.	NORTH P.H.	SOUTH P.H.	ASH CONTROL VALVE SET POINT	CONTROL VALVE (✓) AUTO	CONTROL VALVE (✓) MAN	ASH CONTROL VALVE SET POINT	(✓) SEP 8 1981 IF ON 60-1	60-2	60-3	TANK LEVEL %	MOD DAMP POSITION	MOD DAMPER POSITION	STACK TEMP
12:00 AM	140	28				6.5	6.5	100		✓	100			✓	44	45	40	137
1:00 AM	140	42		1.93		6.5	6.5	100		✓	100	✓		✓	40	40	40	137
2:00 AM	141	40		1.13		6.5	6.5	100		✓	100	✓		✓	43	40	40	137
3:00 AM	139	39				6.5	6.5	100		✓	100	✓		✓	41	40	40	135
4:00 AM	139	40				6.5	6.5	100		✓	100	✓		✓	55	40	40	135
5:00 AM	140	42				6.5	6.5	100		✓	100	✓		✓	70	40	40	135
6:00 AM	140	45				6.5	6.5	100		✓	100	✓		✓	78	40	40	134
7:00 AM	139	52				6.5	6.5	100		✓	100	✓		✓	86	55	55	137
8:00 AM	138	50		2.62		6.4	6.3	100		✓	100	✓		✓	82	60	60	136
9:00 AM	260	47		1.71		6.4	6.15	100		✓	100	✓		✓	57	55	55	154
10:00 AM	253	44				6.3	6.15	100		✓	100	✓		✓	34	60	60 X	162
11:00 AM	263	52				6.15	6.3	100		✓	100	✓		✓	41	60	60 X	11.9
12:00 PM	246	54				6.3	6.2	100		✓	100	✓		✓	36	60	60	153
1:00 PM	237	54				6.15	6.15	100		✓	100	✓		✓	36	50	50	144
2:00 PM	217	55				6.3	6.4	100		✓	100	✓		✓	40	50	50 X	171
3:00 PM	250	54				6.25	6.3	100		✓	100	✓	ON 3:30	OFF 3:35	32	57	57 X	166
4:00 PM				1.91		Burner	Scrubber	Problems										
5:00 PM	187	56				6.35	6.4	100		✓	100	✓	✓	ON 5:40 PM	48	0	0 X	247
6:00 PM	185	60				6.5	6.5	100		✓	100	✓	OFF 6:40 P	✓	70	55	55	156
7:00 PM	185	60				6.5	6.5	100		✓	100	✓		✓	80	60	60	139
8:00 PM	185	60				6.35	6.45	100		✓	100	✓		✓	91	55	55	133
9:00 PM	188	60				6.4	6.45	100		✓	100	✓		✓	80	50	50	159
10:00 PM	133	59				6.45	6.45	100		✓	100	✓		✓	70	45	45	140
11:00 PM	115	55				6.5	6.4	100		✓	100	✓		✓	78	40	40	135
12:00 AM																		

REMARKS: 12:00 AM 3:26 AM / 4:45 Mod Dampers Closed Lime Transfer System
" " 8:30 AM / 6:05 PM Mod Dampers Opened / 603 Made In.
11:20 PM Soda Ash Transfer Pump shut off System On to clean Solenoids, Lines & Tk /
Mod Damper Problems

	Gross Load (mW)	Oxygen Flow %	P.H. Required	Continuous	Avg. P.H.	North P.H.	South P.H.	Air Control Valve Set Point	Control Valve (√) Auto	Control Valve (√) Man	Air Control Valve Set Point	(√) Set if On 601	602	603	Tank Level %	Mod Damper Position	Mod Damper Position	Stack Temp
00 A.M.	115	46				6.5	6.4	100		✓	100			✓	80	40	40	136
05 A.M.	114	62				6.5	6.4	100		✓	100	✓		✓	84	40	40	135
10 A.M.	112	56				6.5	6.4	100		✓	100	✓		✓	84	40	40	135
00 A.M.	112	55				6.5	6.4	100		✓	100	✓		✓	82	40	40	134
00 A.M.	112	54				6.5	6.4	100		✓	100	✓		✓	86	40	40	135
05 A.M.	112					6.5	6.5	100		✓	100	✓		✓	90	40	40	135
						6.5	6.5	100		✓	100	✓		✓	88	40	40	131
						6.5	6.5	100		✓	100			✓	79	50	45	130
						6.5	6.5	100		✓	100	✓		✓	76	45	45	
															78	45	45	15
						6.4	6.5	100		✓		✓		✓				0
						6.5	6.4	100		✓	100	✓		✓	70			
						6.5	6.3	100		✓	100	✓		✓	71			
						6.4	6.3	100		✓	100	✓						
						6.4	6.2	100		✓	100	✓	35		56			
						6.4	6.3	100		✓		✓						
						6.4	6.4	100		✓		✓						
						6.4	6.5	100		✓		✓						
						6.5	6.5	100		✓		✓		✓				
						6.6	6.6	100		✓	100	✓		✓				
										✓		✓		✓				
								100		✓		✓		✓				
										✓		✓		✓				
										✓	100	✓		✓				

	Gross Lon (mlg)	Regen Flow %	P.H. Required	Container	Avg. P.H.	North P.H.	South P.H.	ASH Control Valve Set Point	Control Valve (✓) Auto	Control Valve (✓) Man	ASH Control Valve Set Point	(✓) SEP 10 1981 601	602	603	Tank Level %	Mod Damper Position	Mod Damper Position	Stack Temp
8:00 A.M.						6.6	6.7	100		✓	100	✓	✓		98	40	40	139
8:30 A.M.	112	68				6.55	6.7	100		✓	100	✓			98	40	40	141
9:00 A.M.	111	67				6.55	6.7	100		✓	100	✓			98	40	45	139
9:30 A.M.	109	68				6.5	6.55	100		✓	100	✓		@44	100	40	45	141
10:00 A.M.	114	68				6.5	6.55	100		✓	100	✓		✓	100	45	45	141
10:30 A.M.	112	68				6.6	6.55	100		✓	100	✓		✓	100	45	45	136
11:00 A.M.	116	67				6.6	6.55	100		✓	100	✓		✓	100	45	45	135
11:30 A.M.	143	52				6.4	6.3	100		✓	100	✓		✓	100	45	45	137
12:00 P.M.	159	52				6.5	6.3	100		✓	100	✓		✓	100	45	45	132
12:30 P.M.	180	38				6.5	6.6	100		✓	100	✓		✓	100	50	50	131
1:00 P.M.	192	58				6.4	6.15	100		✓	100	✓		✓	100	55	55	132
1:30 P.M.	200	66				6.5	6.3	100		✓	100	✓		✓	100	55	55	141
2:00 P.M.	194	61				6.5	6.3	100		✓	100	✓		✓	100	55	55	140
2:30 P.M.	226	62				6.5	6.3	100		✓	100	✓		✓	100	60	60	137
3:00 P.M.	254	66				6.5	6.2	100		✓	100	✓		✓	99	60	60	137
3:30 P.M.	252	65				6.5	6.4	100		✓	100	✓		✓	99	60	60	139
4:00 P.M.	239	67				6.4	6.4	100		✓	100	✓		✓	98	62	62	135
4:30 P.M.	232	67				6.4	6.4	100		✓	100	✓		✓	96	62	62	130
5:00 P.M.	240	68				6.4	6.4	100		✓	100	✓		✓	96	60	60	133
5:30 P.M.	245	68				6.4	6.4	100		✓	100	✓		✓	94	62	62	135
6:00 P.M.	226	67				6.4	6.4	100		✓	100	✓		✓	88	62	62	132
10:00 P.M.	200	63				6.4	6.5	100		✓	100	✓		✓	58	60	60	132
11:00 P.M.	180	58				6.5	6.5	100		✓	100	✓		✓	34	50	50	147
12:00 P.M.	173	60				6.5	6.5	100		✓	100	✓		✓	37	50	50	

12-8 Q. S.

8-4 (Noon Sa.)

REMARKS: Cyl. mod. 2:30 PM.
Cyl. mod. 9:15 PM
Cyl. Soda ash regulator
Dilord Ease. 7:30 P.M.

	Gross Load (MW)	Regen Flow %	P.H. Required	Condenser	Avg. P.H.	North P.H.	South P.H.	Ash Control Valve Set Point	Control Valve (✓) Auto	Control Valve (✓) Man	Ash Control Valve Set Point	(✓) SEP 17 82 1981 601	602	603	Tank Level %	Mod Damp Position	Mod Damper Position	Stack T.E.
12:00 A.M.	173	58				6.45	6.5	100		✓	100	✓		✓	35	50	50	140
1:00 A.M.	153	60				6.5	6.5	100		✓	100	✓		✓	37	45	45	144
2:00 A.M.	140	60				6.5	6.5	100		✓	100	✓		✓	37	45	45	144
3:00 A.M.	112	30				6.5	6.5	100		✓	100	✓		✓	42	40	40	140
4:00 A.M.	113	40				6.5	6.5	100		✓	100	✓		off 3:45 PM	33	45	45	140
5:00 A.M.	115	50				6.45	6.5	100		✓	100	✓			37	45	45	139
6:00 A.M.	174	52				6.45	6.5	100		✓	100	✓		6:45 PM	38	45	45	139
7:00 A.M.	210	62				6.5	6.35	100		✓	100	✓		✓	32	55	55	139
8:00 A.M.	262	60				6.4	6.4	100		✓	100	✓		✓	38	55	55	141
9:00 A.M.	258	62		.375		6.4	6.3	100		✓	100	✓		✓	33	60	60	150
10:00 A.M.	258	62				6.2	6.3	100		✓	100	✓		✓	38	65	65	151
11:00 A.M.	250	66				6.2	6.3	100		✓	100	✓		✓	38	70	70	141
12:00 P.M.	267	66				6.2	6.3	100		✓	100	✓		✓	62	70	70	141
1:00 P.M.	260	64				6.2	6.3	100		✓	100	✓		✓	64	65	65	151
2:00 P.M.	259	63				6.1	6.3	100		✓	100	✓		✓	42	65	65	151
3:00 P.M.	260	60				6.2	6.7	100		✓	100	✓		✓	30	65	65	151
4:00 P.M.	260	64				6.3	6.7	100		✓	100	✓	X	✓	24	0	0	21
5:00 P.M.	260	62		.367		6.4	6.7	100		✓	100	✓	X	✓	60	60	60	141
6:00 P.M.	260	63				6.1	6.5	100		✓	100	✓	X	✓	40	65	65	138
7:00 P.M.	262	60				6.1	6.5	100		✓	100	✓	X	off 6:45 PM	46	65	65	139
8:00 P.M.	265	63				6.2	6.4	100		✓	100	✓	X		22	20	20	177
9:00 P.M.	292	60				6.1	6.5	100		✓	100	✓	X		28	65	65	141
10:00 P.M.	128	62				6.2	6.6	100		✓	100	✓	X	on 10:45 PM	30	40	40	139
11:00 P.M.	115	61				6.45	6.65	100		✓	100	off 10:30 PM		✓	38	45	45	157
12:00 P.M.											101			✓	39	45	45	

12-1 JMD

1-4 SMITH

REMARKS: MODS. EXERCISED — 12:30 PM (603 plugged up 6:45 PM, on 10:45 PM)
3:30 MODS CLOSED — LIME TRANSFER PLUGGED Open 5:00 PM
6:00 " Closed - Open. 7:30 PM

	Gross Load (MW)	Recen Flow %	P.H. Required	Compliance	Avg. P.H.	North P.H.	South P.H.	ASH Control Valve Set Point	Control Valve (✓) AUTO	Control Valve (✓) MAN	ASH Control Valve Set Point	(✓) SEP 12 1981 601	602	603	Tank Level %	Mod Damp Position	Mod Damper Position	Stack Temp
1:00 A.M.	109	61				6.45	6.7	100		✓	100			✓	36	50	50	
2:00 A.M.	107	60				6.35	6.6	100		✓	100	✓			34	50	50	
3:00 A.M.	106	62				6.3	6.6	100		✓	100	✓			32	50	50	
4:00 A.M.	104	62				6.3	6.6	100		✓	100	✓			38	50	50	
5:00 A.M.	104	61		.367		6.3	6.6	100		✓	100	✓			38	50	50	
6:00 A.M.	104	57				6.25	6.4	100		✓	100	✓			37	46	46	
7:00 A.M.	108	57				6.25	6.4	100		✓	100	✓			37	40	40	
8:00 A.M.	110	57				6.3	6.4	100		✓	100	✓			37	40	40	
9:00 A.M.	110	58				6.3	6.5	100		✓	100	✓			39	40	40	
10:00 A.M.	140	56				6.6	6.4	100		✓	100	✓			36	40	40	
11:00 A.M.	139	56				6.6	6.4	100		✓	100	✓			35	40	40	
12:00 N.oon	144	56		.335		6.5	6.3	100		✓	100	✓			34	45	45	
1:00 P.M.	140	56				6.5	6.3	100		✓	100	✓			37	45	45	
2:00 P.M.	144	57				6.5	6.3	100		✓	100	✓			36	45	45	
3:00 P.M.	143	56				6.6	6.3	100		✓	100	✓			34	45	45	
4:00 P.M.	140	55				6.5	6.3	100		✓	100	✓			34	45	45	
5:00 P.M.	136	53				6.5	6.3	100		✓	100	✓	ON 3:55 PM		38	45	45	
6:00 P.M.	160	54				6.5	6.3	100		✓	100	✓	✓		37	45	45	
7:00 P.M.	130	53		.345		6.6	6.2	100		✓	100	✓	OFF 7:35 PM		38	45	45	
8:00 P.M.	130	57				6.5	6.4	100		✓	100	✓			38	45	45	
9:30 P.M.	130	58				6.5	6.4	100		✓	100	✓			37	45	45	
10:00 P.M.	130	57				6.5	6.4	100		✓	100	✓			36	45	45	
11:00 P.M.	130	60				6.5	6.4	100		✓	100	✓			56	45	45	
12:00 P.M.	130	60				6.5	6.45	100		✓	100	✓			46	45	45	

12-8 MD

9-4 Rooster

" " M.

REMARKS: Open mod dampers.
Open Sodium regulators 830 AM.
Mods Close: 5:30 P.M.

	Gross Load (MW)	Regen Flow %	P.H. Required	Continuous	Avg. P.H.	North P.H.	South P.H.	Ash Control Valve Set Point	Control Valve (✓) Auto	Control Valve (✓) Man	Ash Control Valve Set Point	(✓) SEP 13 1981 IF ON 601	602	603	Tank Level %	Mod Damp Position	Mod Damper Position	Stack Temp
12:00 AM	130	58				6.5	6.45	100		✓	100	✓			36	45	45	145
1:00 AM	120	58				6.5	6.5	100		✓	100	✓			37	45	45	150
2:00 AM	120	60				6.5	6.45	100		✓	100	✓			38	50	50	150
3:00 AM	120	60		.345		6.45	6.45	100		✓	100	✓			38	45	45	150
4:00 AM	120	60				6.5	6.45	100		✓	100	✓			39	45	45	150
5:00 AM	120	59				6.55	6.45	100		✓	100			✓	34	40	40	150
6:00 AM	120	60				6.4	6.4	100		✓	100			✓	38	40	40	146
7:00 AM	120	60				6.5	6.4	100		✓	100			✓	40	40	40	150
8:00 AM	120	59				6.4	6.4	100		✓	100			✓	40	40	40	150
9:00 AM	120	60				6.4	6.3	100		✓	100			✓	40	40	40	150
10:00 AM	118	60		.248		6.5	6.2	100		✓	100				40	40	40	150
11:00 AM	119	60		7.25		6.4	6.2	100		✓	100				40	40	40	150
12:00 PM	120	62				6.5	6.2	100		✓	100			✓	42	45	40	150
1:00 PM	121	63				6.5	6.2	100		✓	100	✓		✓	54	45	40	150
2:00 PM	121	64				6.5	6.3	100		✓	100	✓		✓	64	50	40	150
3:00 PM	120	63				6.5	6.3	100		✓	100	✓		✓	76	55	40	150
4:00 PM	120	60				6.4	6.4	100		✓	100	✓			64	45	45	150
5:00 PM	120	60				6.5	6.4	100		✓	100	✓			54	45	45	150
6:00 PM	120	60				6.5	6.4	100		✓	100	✓			40	45	45	150
7:00 PM	120	58		.204		6.5	6.4	100		✓	100	✓			38	45	45	150
8:00 PM	120	58		7.65		6.5	6.4	100		✓	100	✓			36	45	45	150
9:00 PM	120	58				6.4	6.4	100		✓	100	✓			38	45	45	150
10:00 PM	120	58				6.5	6.4	100		✓	100	✓			37	45	45	150
11:00 PM			?	?	?													
12:00 PM	120	60				6.45	6.4	100		✓	100	✓			35	45	45	150

12-9 MD

1-4 J. D.

4-11 T. M.

REMARKS: Sonic horn 7:45 pm at 8:30 PM

Mode Excess 6:29 PM

	Gross Load (MW)	Regen Flow %	P.H. Required	Condenser	Avg. P.H.	North P.H.	South P.H.	ASH Control Valve Set Point	Control Valve (√) Auto	Control Valve (√) Man	ASH Control Valve Set Point	(√) SEP 15 1981 IF ON 601	602	603	Tank Level %	Mod Damper Position	Mod Damper Position	Stack Temp
12:00 AM	126	55	.35	8.20		6.6	6.65	100		✓	100	✓			67	45	45	136
1:00 AM	120	55	.05			6.6	6.65	100		✓	100	✓			67	45	45	136
2:00 AM	120	54	.42			6.6	6.7	100		✓	100	✓			60	45	45	136
3:00 AM	120	52	.92			6.6	6.7	100		✓	100	✓			50	45	45	136
4:00 AM	121	26	3.11			6.55	6.6	100		✓	100	✓			36	45	45	136
5:00 AM	120	36	1.56			6.5	6.55	100		✓	100	✓			36	45	45	135
6:00 AM	120	30	2.50			6.5	6.6	100		✓	100	✓			29	40	40	135
7:00 AM	119	32	2.24			6.5	6.6	100		✓	100	✓			38	40	40	136
8:00 AM	120	32	2.16	9.30 .295		6.5	6.6	100		✓	100	✓			34	40	40	137
9:00 AM	141	40	1.49			6.5	6.5	100		✓	100	✓			36	40	40	137
10:00 AM	147	40	1.68			6.5	6.5	100		✓	100	✓			42	50	55	137
11:00 AM	147	38	1.96			6.5	6.5	100		✓	100	✓			28	50	55	136
12:00 PM	133	34	2.06			6.5	6.5	100		✓	100	✓			34	50	50	136
1:00 PM	120	24	1.80			6.5	6.5	100		✓	100	✓ 115		✓ 115	30	50	50	135
2:00 PM	119	34	1.69			6.5	6.5	100		✓	100	✓ 115		✓ 115	32	45	45	135
3:00 PM	120	30	2.27	9.35 .295		6.5	6.5	100		✓	100	✓			34	45	45	135
4:00 PM	120	30	2.28			6.5	6.5	100		✓	100	✓			38	45	45	135
5:00 PM	120	30	2.28			6.5	6.5	100		✓	100	✓			37	45	45	135
6:00 PM	121	28	2.83			6.5	6.6	100		✓	100	✓			38	45	45	136
7:00 PM	121	29	2.72			6.5	6.6	100		✓	100	✓			38	45	45	135
8:00 PM	115	34	1.54			6.4	6.6	100		✓	100	✓			36	45	45	135
9:00 PM	116	25	3.11			6.5	6.6	100		✓	100	✓			37	45	45	134
10:00 PM	128	32	2.56	9.60 .288		6.5	6.6	100		✓	100	✓			44	45	45	133
11:00 PM	115	28	2.63			6.5	6.55	100		✓	100	✓			34	45	45	133
12:00 AM															34	45	45	

12-9 [illegible]

9-4 [illegible]

T. M.

REMARKS: [illegible] made 2:30 PM.

Mods Exerc. 6:40 PM

229

	Gross Load (MW)	Recen Flow %	P.H. Required	Continuous 8.6 .280	Avg. P.H.	North P.H.	South P.H.	ASH Control Valve Set Point	Control Valve (✓) Auto	Control Valve (✓) Man	ASH Control Valve Set Point	(✓) SEP 16 1981 If ON 601	602	603	Tank Level %	Mod Damper Position	Mod Damper Position	Sta Tel
12:00 AM	115	30				6.5	6.55	100		✓	100				35	40	40	132
1:00 AM	115	30				6.5	6.65	100		✓	100	✓			37	40	40	135
2:00 AM	115	30				6.5	6.65	100		✓	100	✓			35	40	40	135
3:00 AM	115	30				6.5	6.7	100		✓	100	✓			36	40	40	135
4:00 AM	110	30				6.5	6.7	100		✓	100	✓			38	35	35	136
5:00 AM	110	32				6.5	6.5	100		✓	100	✓			40	40	40	142
6:00 AM	110	32				6.5	6.45	100		✓	100	✓			40	40	40	139
7:00 AM	110	26				6.5	6.5	100		✓	100	✓			34	40	40	137
8:00 AM	110	28				6.5	6.5	100		✓	100	✓			38	40	40	138
9:00 AM	110	30		8.63 .826		6.5	6.5	100		✓	100	✓			38	40	40	137
10:00 AM	150	40				6.5	6.5	100		✓	100	✓			36	50	50	139
11:00 AM	159	44				6.45	6.5	100		✓	100	✓			40	40	50	139
12:00 PM	160	43				6.5	6.5	100		✓	100	✓			38	40	50	141
1:00 PM	155	43				6.5	6.5	100		✓	100	✓			40	40	50	134
2:00 PM	152	42				6.5	6.5	100		✓	100	✓			44	40	45	144
3:00 PM	145	42		7.71 .331		6.5	6.5	100		✓	100	✓			46	45	45	135
4:00 PM	144	41				6.4	6.5	100		✓	100	✓			46	45	40	NA
5:00 PM	139	46				6.5	6.5	100		✓	100	✓			56	40	40	142
6:00 PM	123	44				6.5	6.5	100		✓	100	✓			61	40	40	139
7:00 PM	111	36				6.5	6.5	100		✓	100	✓			64	40	40	137
8:00 PM	112	42				6.5	6.5	100		✓	100	✓			55	40	40	13
9:00 PM	106	44				6.5	6.5	100		✓	100				56	40	40	138
10:00 PM	111	44		8.02 .332		6.45	6.5	100			100	✓			59	40	40	131
11:00 PM	110	44				6.5	6.5	100		✓	100	✓			59	35	35	132

12-8 AM

8-4 [illegible]

REMARKS: MODS. EXERCISED — 2:20 AM
MODS EXERCISED 4:30 PM

	Gross Load (MW)	Regen Flow %	P.H. Required	Conflener	Avg. P.H.	North P.H.	South P.H.	South Ash Control Valve Set Point	Ash Control Valve (✓) Auto	Ash Control Valve (✓) Man	Ash Control Valve Set Point	SEP 17 1981 IF ON (✓) 601	602	603	Tank Level %	Mod Damper Position	Mod Damper Position	Stack Temp
12:00 A.M.	110	43		8.02		6.5	6.5	100		✓	100	✓			56	35	35	137
1:00 A.M.	111	44		.332		6.5	6.5	100		✓	100	✓			71	35	35	138
2:00 A.M.	110	43				6.5	6.5	100		✓	100	✓			66	35	35	142
3:00 A.M.	110	43				6.5	6.5	100		✓	100	✓			68	40	40	145
4:00 A.M.	110	43				6.5	6.5	100		✓	100	✓			70	40	40	137
5:00 A.M.	111	44				6.5	6.5	100		✓	100	✓			72	40	40	134
6:00 A.M.	110	43				6.5	6.5	100		✓	100	✓			73	40	40	137
7:00 A.M.	110	44				6.5	6.5	100		✓	100	✓			68	40	40	135
8:00 A.M.	113	44				6.5	6.5	100		✓	100	✓			58	40	40	137
9:00 A.M.	110	42		7.94		6.5	6.5	100		✓	100	✓			58	40	40	137
10:00 A.M.	109	44		.326		6.4	6.5	100		✓	100	✓			46	40	40	131
11:00 A.M.	103	44		(.036)		6.4	6.5	100		✓	100	✓			38	40	40	134
12:00 P.M.	114	44				6.45	6.5	100		✓	100	✓			36	38	38	131
1:00 P.M.	113	44				6.45	6.5	100		✓	100	✓			38	35	40	132
2:00 P.M.	112	44				6.5	6.5	100		✓	100	✓			38	40	40	138
3:00 P.M.	110	44		7.94		6.5	6.5	100		✓	100	✓			39	40	40	136
4:00 P.M.	109	43		.336		6.4	6.5	100		✓	100	✓			44	40	40	133
5:00 P.M.	110	44				6.4	6.5	100		✓	100	✓			43	40	40	131
6:00 P.M.	110	44				6.5	6.5	100		✓	100	✓			42	40	40	131
7:00 P.M.	109	43				6.5	6.5	100		✓	100	✓			38	40	40	131
8:00 P.M.	107	36		(.31)		6.6	6.5	100		✓	100	✓			36	35	35	132
9:00 P.M.	110	42				6.4	6.5	100		✓	100	✓			39	36	35	129
10:00 P.M.	113	44		8.33		6.4	6.5	100		✓	100	✓			37	35	35	136
11:00 P.M.	110	43		.318		6.5	6.5	100		✓	100	✓			43	39	39	133
12:00																		
1:00																		
2:00																		

12.8

2.4

REMARKS: MODS. Exercised @ 3:40 AM

" " @ 10:30 AM

" " @ 4:30 PM

	Gross Load (MW)	Recen Flow %	P.H. Required	Compliance	Avg. P.H.	North P.H.	South P.H.	Ash Control Valv. Set Point	Control Valve (✓) Auto	Control Valve (✓) Man	Ash Control Valve Set Point	(✓) SEP 18 1981 IF ON 601	602	603	Tank Level %	Mod Damper Position	Mod Damper Position	Stack Temp
12:00 A.M.	110	43				6.4	6.5	100		✓	100	✓			37	38	38	137
1:00 A.M.	110	43				6.4	6.5	100		✓	100	✓			36	38	38	137
2:00 A.M.	110	43				6.4	6.5	100		✓	100	✓			36	38	38	137
3:00 A.M.	110	44				6.4	6.5	100		✓	100	✓			36	38	38	137
4:00 A.M.	112	43				6.4	6.5	100		✓	100	✓			37	38	38	137
5:00 A.M.	112	43				6.4	6.5	100		✓	100	✓			38	38	38	138
6:00 A.M.	112	44				6.4	6.5	100		✓	100	✓			38	38	38	137
7:00 A.M.	116	45				6.4	6.5	100		✓	100	✓			38	38	38	132
8:00 A.M.	110	45				6.4	6.5	100		✓	100	✓			40	35	40	131
9:00 A.M.	109	44				6.4	6.5	100		✓	100	✓			38	35	40	131
10:00 A.M.	109	45				6.4	6.5	100		✓	100	✓			36	35	40	134
11:00 A.M.	110	45				6.4	6.5	100		✓	100	✓			38	35	40	135
12:00 P.M.	109	45				6.4	6.5	100		✓	100	✓			39	35	40	136
1:00 P.M.	107	45				6.4	6.5	100		✓	100	✓			38	35	40	137
2:00 P.M.	109	45				6.4	6.5	100		✓	100	✓			38	35	40	138
3:00 P.M.	110	46				6.45	6.45	100		✓	100	✓			40	35	40	138
4:00 P.M.	107	46				6.5	6.4	100		✓	100	✓			38	35	40	136
5:00 P.M.	108	44				6.5	6.5	100		✓	100	✓			39	40	40	136
6:00 P.M.	106	42				6.5	6.5	100		✓	100	✓			38	40	40	134
7:00 P.M.	75	30				6.5	6.5	100		✓	100	✓			39	40	40	135
8:00 P.M.	-4	19				6.9	6.6	100		✓	100	OFF B/S			50	0	0	135
9:00 P.M.	-6	16				7.0	6.6	100		✓	100				49	0	0	126
10:00 P.M.	-9	15				7.1	6.5	100		✓	100				47	0	0	16
11:00 P.M.	—	15				7.0	6.5	100		✓	100				45	0	0	141
															48	0	0	10

12-9 1.M.
9-4 " "

REMARKS:
SEP 18 1981
South 7AM - 4PM
" " 9PM
" " 430PM
South Soda Ash By-Pass 1/2 open per K KINMAN @ 430PM
mid off 808PM " open

	GRO. LOAD (MW)	REGEN FLOW %	P.H. REQUIRED	CONDENSER	AVG. P.H.	NORTH P.H.	SOUTH P.H.	SO2 ASH CONTL VALVE SET POINT	ASH CONTROL VALVE (✓) AUTO	ASH CONTROL VALVE (✓) MAN	ASH CONTROL VALVE SET POINT	(✓) SEP 19 1981 IF ON 601	602	603	TANK LEVEL %	MO DAM. POSITION	MOD DAMPER POSITION	STAC TEMP
12:00 A.M.																		
1:00 A.M.																		
2:00 A.M.																		
3:00 A.M.																		
4:00 A.M.																		
5:00 A.M.																		
6:00 A.M.																		
7:00 A.M.																		
8:00 A.M.																		
9:00 A.M.																		
10:00 A.M.																		
11:00 A.M.																		
12:00 P.M.																		
1:00 P.M.																		
2:00 P.M.																		
3:00 P.M.																		
4:00 P.M.																		
5:00 P.M.																		
6:00 P.M.																		
7:00 P.M.																		
8:00 P.M.																		
9:00 P.M.																		
10:00 P.M.																		
11:00 P.M.																		
12:00 P.M.																		

12-9 T. M.

9-4

REMARKS: Unit off. (Began Blump @ 0345 hrs.)

	Gross Load (MW)	Recen Flow %	P.H. Required	Continuous	Avg. P.H.	North P.H.	South P.H.	Ash Control Valve Set Point	Control Valve (✓) Auto	Control Valve (✓) Man	Ash Control Valve Set Point	(✓) SEP 20 1981 601	602	603	Tank Level %	Mod Da. Position	Mod Damper Position	Stack Temp
12:00 A.M.																		
1:00 A.M.																		
2:00 A.M.																		
3:00 A.M.																		
4:00 A.M.																		
5:00 A.M.																		
6:00 A.M.																		
7:00 A.M.																		
8:00 A.M.																		
9:00 A.M.																		
10:00 A.M.																		
11:00 A.M.																		
12:00 P.M.																		
1:00 P.M.																		
2:00 P.M.																		
3:00 P.M.																		
4:00 P.M.																		
5:00 P.M.	400																	
6:00 P.M.																		
7:00 P.M.																		
8:00 P.M.																		
9:30 P.M.	900																	
10:00 P.M.	5	15				7.9	7.3	0		✓	0				72	20	20	
11:00 P.M.																		
12:00 P.M.																		

12-9

9-1

Remarks: SEP 20 1981 NORTH REC ON 916PM – REG PUMP B on 920PM
SOUTH REC ON 950PM – DAMPERS Open
FD FANS ON South 955PM 20%
North 955PM

	Gross Lon (mins)	Flow %	P.H. Required	Continuous	Avg. P.H.	P.H.	P.H.	Control Valve Set Point	Valve (✓) Auto	Valve (✓) Man	Control Valve Set Point	(✓) If ON 601	602	603	Level %	Damper Po n	Damper Position	Tel
12:00 A.M.																		
1:00 A.M.																		
2:00 A.M.	105	43				6.4	6.4	0		✓	0			FF 3:55 PM	52	50	50	17
3:00 A.M.	101	46				6.5	6.5	0		✓	0				52	0	0	19
4:00 A.M.																		
5:00 A.M.																		
6:00 A.M.																		
7:00 A.M.																		
8:00 A.M.																		
9:00 A.M.																		
10:00 A.M.																		
11:00 A.M.																		
12:00 P.M.																		
1:00 P.M.																		
2:00 P.M.	109	44				6.0	6.45	0		✓	0				40	0	0	25
3:00 P.M.	106	45				5.9	6.45	0		✓	0	ON 4:45 PM			40	10	60	25
4:00 P.M.	109	34				6.5	6.5	0		✓	0	✓			57	0	80	24
5:00 P.M.	110	48				6.4	6.3	0		✓	0	✓			56	40	40	22
6:00 P.M.		48				6.4	6.3	100		✓	100	✓			56	50	50	14
7:00 P.M.	109	46				6.3	6.3	100		✓	100	✓			41	50	50	14
8:00 P.M.	106	46				6.3	6.4	100		✓	100	✓			31	35	35	14
9:00 P.M.	104	46				6.4	6.4	100		✓	100	✓			32	35	35	
10:00 P.M.	110	45				6.4	6.5	100		✓	100	✓			39	40	40	14
11:00 P.M.																		
12:00 A.M.																		
1:00 A.M.																		
2:00 A.M.																		

Remarks: SEP 21 1981 Mods open 2 45 AM (Mods closed 3 45 AM)
S.T.D. fan off 3 55 AM. — WARMING SOUTH FAN 435pm
SOUTH FAN ON 630pm — SODA ASH ON 715pm REG 100%

	Gross Load (MW)	Regen Flow %	P.H. Required	Conductivity	Avg. P.H.	North P.H.	South P.H.	Ash Control Valve Set Point	Control Valve (✓) Auto	Control Valve (✓) Man	Flow Control Valve Set Point	(✓) If ON 601	602	603	Tank Level %	Mod Damper Pos.	Damper Position	Sim Tel
12:00 A.M.	110	47	1.49	7.20		6.3	6.5	100		✓	100	✓			37	40	40	142
1:00 A.M.	106	46	1.43	.178		6.3	6.5	100		✓	100	✓			38	45	45	141
2:00 A.M.	110	47	1.46			6.3	6.5	100		✓	100	✓			39	45	45	14
3:00 A.M.	110	47	1.44			6.3	6.5	100		✓	100	✓			38	45	45	13
4:00 A.M.	113	47	1.53			6.3	6.5	100		✓	100	✓			38	45	50	13
5:00 A.M.	113	46	1.61			6.3	6.5	100		✓	100	✓			37	50	50	13
6:00 A.M.	112	47	1.46			6.3	6.5	100		✓	100	✓			39	40	50	13
7:00 A.M.	110	46	.67	8.59		6.25	6.3	100		✓	100	✓			39	40	40	13
8:00 A.M.	110	46	1.11	.190		6.25	6.45	100		✓	100	✓			42	35	35	13
9:00 A.M.	111	46	.91			6.25	6.5	100		✓	100	✓			45	35	35	13
10:00 A.M.	110	45	1.20			6.3	6.5	100		✓	100	✓			48	35	35	14
11:00 A.M.	110	45	.94			6.35	6.5	100		✓	100	✓			46	35	35	14
12:00 P.M.	110	45	.65			6.2	6.5	100		✓	100	✓			40	35	35	14
1:00 P.M.	110	46	.48			6.2	6.5	100		✓	100	✓			40	35	35	13
2:00 P.M.	110	47	.05			6.15	6.5	100		✓	100	✓			40	35	35	13
3:00 P.M.	112	48	—	8.62		6.1	6.5	100		✓	100	✓			38	35	35	13
4:00 P.M.	110	48	1.54	.200		6.5	6.5	100		✓	100	✓			39	35	35	13
5:00 P.M.	112	45	1.96			6.15	6.5	100		✓	100	✓			39	35	35	13
6:00 P.M.	108	46	1.80			6.5	6.5	100		✓	100	✓			41	35	35	13
7:00 P.M.	112	44	2.18			6.5	6.5	100		✓	100	✓			44	35	35	13
8:00 P.M.	113	48	1.57			6.4	6.5	100		✓	100	✓			44	40	40	13
9:00 P.M.	109	48	1.09			6.3	6.5	100		✓	100	✓			40	40	40	13
10:00 P.M.	108	45	1.44	8.52		6.3	6.5	100		✓	100	✓			40	40	40	13
11:00 P.M.	110	47	1.24	.180		6.3	6.5	100		✓	100	✓			37	40	40	13

12.8 T M

8.4 700

1100-700

REMARKS:
SEP 22 1981 mod Dampers & 500A Ash Excer 500pm
9/150T

SEP 23 1981

	Gross Lc (MW)	Regen Flow %	P.H. Required	Conflinear	Avg. P.H.	North P.H.	South P.H.	Ash Control Val Set Point	Control Valve (✓) Auto	Control Valve (✓) Man	Ash Control Valve Set Point	(✓) If On 601	602	603	Tank Level %	Mod D ir Position	Mod Damper Position	St. Te.
1:00 A.M.	110	47	1.19	8.82		6.3	6.5	100		✓	100	✓			39	50	50	13
2:00 A.M.	108	47	1.06	.150		6.3	6.5	100		✓	100	✓			39	50	40	12
3:00 A.M.	110	47	1.08			6.3	6.5	100		✓	100	✓			38	50	50	12
4:00 A.M.	110	46	1.14			6.3	6.5	100		✓	100	✓			37	50	40	12
5:00 A.M.	111	47	1.01			6.3	6.5	100		✓	100	✓			38	43	43	12
6:00 A.M.	112	46	1.11			6.3	6.5	100		✓	100	✓			38	40	40	12
7:00 A.M.	111	47	.90			6.3	6.5	100		✓	100	✓			46	35	36	13
8:00 A.M.	110	46	.92			6.3	6.5	100		✓	100	✓			37	35	35	13
9:00 A.M.	110	33	2.69	8.96		6.4	6.5	100		✓	100	✓			48	35	35	14
10:00 A.M.	110	38	2.45	.200		6.5	6.5	100		✓	100	✓			46	35	35	14
11:00 A.M.	110	38	2.28			6.45	6.5	100		✓	100	✓			49	35	35	13
12:00 N.	123	22	3.07			6.4	6.5	100		✓	100	✓			58	35	35	14
1:00 P.M.	122	31	2.52			6.4	6.5	100		✓	100	✓			60	40	40	14
2:00 P.M.	123	26	4.14			6.7	6.5	100		✓	100	✓			80	40	40	13
3:00 P.M.	110	33	2.85			6.5	6.5	100		✓	100	✓			76	35	35	13
4:00 P.M.	114	20	4.25			6.5	6.5	100		✓	100	✓			88	35	35	14
5:00 P.M.	110	38	2.26	8.12		6.5	6.5	100		✓	100	✓			86	40	35	13
6:00 P.M.	109	32	3.05	.209		6.6	6.5	100		✓	100	✓			96	40	35	13
7:00 P.M.	110	28	3.32			6.55	6.5	100		✓	100	✓			100	40	35	13
8:00 P.M.	110	38	2.07			6.5	6.5	100		✓	100	✓			98	40	35	13
9:30 P.M.	110	38	2.30			6.6	6.5	100		✓	100	✓			100	40	35	13
10:00 P.M.	109	40	1.99			6.6	6.5	100		✓	100	✓			100	40	35	13
11:00 P.M.	109	40	1.79	8.08		6.5	6.5	100		✓	100	✓			96	35	40	13
12:00 P.M.	110	37	2.05	.208		6.5	6.5	100		✓	100	✓			93	35	40	13

12-8 1.M.

8-4 7M0

22

REMARKS: Woods Escare. 4 3/4 PM 4 6:10 PM
Soda ash bypasses wide open -

237

	Gross Lc (mW)	Regen Flow %	P.H. Required	Conductivity	Avg. P.H.	North P.H.	South P.H.	ASH Control Valve Set Point	Control Valve (✓) Auto	Control Valve (✓) Man	ASH Control Valve Set Point	(✓) SEP 24 1981 If On 601	602	603	Tank Level %	M-D D. CR Position	MOD Damper Position	St. Te
1:00 AM	111	27	313.	(8.00) .220		6.5	6.5	100		✓	100	/			96	35	40	13
2:00 AM	110	43	1.12			6.5	6.5	100		✓	100	✓			98	35	40	13
3:00 AM	110	42	1.12			6.5	6.5	100		✓	100	/			92	35	35	13
4:00 AM	111	42	.60			6.4	6.5	100		✓	100	✓			93	35	35	13
5:00 AM	112	40	.79			6.4	6.5	100		✓	100	/			79	35	35	13
6:00 AM	114	39	.89	(Assuming		6.4	6.5	100		✓	100	/			74	35	35	14
7:00 AM	112	37	.98	(N	H=6.5)	6.4	6.5	100		✓	100	✓			70	35	35	14
8:00 AM	110	37	/		↓	6.45	6.5	100		✓	100	✓			70	35	35	14
9:00 AM	110	25	2.28	(6.52)	2.65	6.55	6.5	100		✓	100	✓			70	35	35	14
10:00 AM	110	34	1.95	.290	1.32	6.7	6.5	100		✓	100	✓			67	35	35	14
11:00 AM	110	24	2.98		2.74	6.6	6.5	100		✓	100	✓			67	35	35	14
12:00 Noon	105	32	1.79		1.46	6.6	6.5	100		✓	100	✓			63	35	35	14
1:00 PM	[illegible]	28	2.62	[illegible]	2.16	6.7	6.5	100		✓	100	✓			56	50	50	14
2:00 PM	182	35	2.93		2.87	6.55	6.5	100		✓	100	✓		✓	55	50	50	14
3:00 PM	145	30	2.91		2.68	6.6	6.5	100		✓	100	✓		✓	59	50	50	14
4:00 PM	152	27	3.51		3.14	6.7	6.5	100		✓	100	✓		✓	61	50	50	14
5:00 PM	163	44	.98	(6.52)		6.4	6.5	100		✓	100	✓		✓	60	45	50	14
6:00 PM	140	41	—	.205		6.3	6.5	100		✓	100	/		✓	64	45	45	14
7:00 PM	104	43	—			6.3	6.5	100		✓	100	✓		✓	68	45	45	13
8:00 PM	161	43	.41			6.3	6.5	100		/	100	/		✓	78	45	50.	14
9:00 PM	176	47	.04			6.25	6.5	100		✓	100	✓		✓	76	50	50	14
10:00 PM	121	38	—			6.3	6.5	100		✓	100	✓		✓	78	40	40	13
11:00 PM	110	32	.12	(6.71)		6.4	6.4	100		✓	100	/		✓	76	40	40	14
12:00 PM	110	34	.55	.351		6.5	6.5	100		✓	100	✓			65	35	35	145

12-8 T. M.

P-4 JLD

SEP 24 1981

Remarks: Middle 6 Lo AM & 10:15 PM –

" " 7:40 PM.

	Gross Lc (MW)	Regen Flow %	P.H. Required	Condenser	Avg. P.H.	North P.H.	South P.H.	ash con val set point	ash control valve (A)	ash control valve (M)	ash control valve set point	(√) If On 601	602	603	tank level %	north damper position	mod damper position	st. te
12:00 A.M.	106	18		.339		6.5	6.5	100			100	✓			72	40	40	14
1:00 A.M.	104	40		8.71		6.5	6.5	100		✓	100	✓	✓		36	45	45	13
2:00 A.M.	111	26				6.5	6.5	100		✓	100	✓	✓		40	40	40	13
3:00 A.M.	111	39				6.5	6.5	100		✓	100	✓	✓		30	40	40	13
4:00 A.M.	110	36				6.5	6.5	100		✓	100	✓	✓		37	40	40	13
5:00 A.M.	110	36				6.5	6.5	100		✓	100	✓			39	40	40	13
6:00 A.M.	111	38				6.5	6.5	100		✓	100	✓			38	40	40	13
7:00 A.M.	137	40				6.45	6.5	100		✓	100	✓			38	40	40	13
8:00 A.M.	140	39		8.77		6.45	6.5	100		✓	100	✓			37	40	40	13
9:00 A.M.	112	34		.325		6.45	6.5	100		✓	100	✓			39	40	40	13
10:00 A.M.	[illegible]	[illegible]				6.45	6.5	100		✓	100	✓			40	40	40	13
11:00 A.M.	122	43				6.4	6.5	100		✓	100	✓			34	40	40	14
12:00 P.M.	110	27				6.45	6.5	100		✓	100	✓			44	40	40	13
1:00 P.M.	112	35				6.5	6.5	100		✓	100	✓			35	40	40	13
2:00 P.M.	110	32				6.5	6.5	100		✓	100	✓			37	40	40	13
3:00 P.M.	109	33				6.5	6.5	100		✓	100	✓			38	40	40	13
4:00 P.M.	109	30				6.5	6.5	100		✓	100	✓			38	40	40	13
5:00 P.M.	118	44		9.15		6.45	6.5	100		✓	100	✓			38	40	40	13
6:00 P.M.	129	44		.372		6.45	6.5	100		✓	100	✓			39	45	40	13
7:00 P.M.	129	44				6.45	6.5	100		✓	100	✓			38	45	40	14
8:00 P.M.	126	45				6.45	6.5	100		✓	100	✓			39	45	40	13
9:00 P.M.	116	43				6.4	6.5	100		✓	100	✓			40	45	40	13
10:00 P.M.	110	42		9.41		6.45	6.5	100		✓	100	✓			40	45	40	13
11:00 P.M.	111	44		.351		6.5	6.5	100		✓	100	✓			38	45	45	13

12-8 Ross Dart SEP 25 1981

8-4 JMO

Remarks: Exer. mod Dampers 1230Am/500A. Ash REG MODS. Exer. @ 10:30 AM —

	Grade Load (MW)	Regen Flow %	P.H. Required	Continuous	Avg. P.H.	North P.H.	South P.H.	Ash Cont. Valve Set Point	Control Valve (✓) Auto	Control Valve (✓) Man	Ash Control Valve Set Point	(✓) SEP 26 1981 If ON 601	602	603	Tank Level %	Man Damper Position	Mod Damper Position	Sta Te
12:00 AM	112	44		5.41		6.4	6.5	100		✓	100	✓			38	45	45	13
1:00 A.M.	108	44		.351		6.5	6.5	100		✓	100	✓			38	45	45	13
2:00 A.M.	110	44				6.4	6.5	100		✓	100	✓			38	45	45	13
3:00 A.M.	113	44				6.4	6.5	100		✓	100	✓			38	45	45	13
4:00 A.M.	113	42				6.3	6.5	100		✓	100	✓			36	45	45	13
5:00 A.M.	107	44				6.3	6.5	100		✓	100	✓			38	45	45	13
6:00 A.M.	115	44				6.4	6.5	100		✓	100	✓			37	45	45	13
7:00 A.M.	113	44				6.3	6.5	100		✓	100	✓			37	45	45	13
8:00 A.M.	110	43				6.4	6.5	100		✓	100	✓			38	45	45	13
9:00 A.M.	110	44		5.45		6.4	6.5	100		✓	100	✓			36	45	45	13
10:00 A.M.	110	43		.368		6.4	6.5	100		✓	100	✓			38	45	45	13
11:00 A.M.	112	43				6.4	6.5	100		✓	100	✓			37	45	45	13
12:00 P.M.	113	43				6.5	6.5	100		✓	100	✓			37	45	45	13
1:00 P.M.	110	43				6.5	6.5	100		✓	100	✓			38	45	45	13
2:00 P.M.	110	43				6.5	6.5	100		✓	100	✓			39	45	45	13
3:00 P.M.	112	43				6.5	6.5	100		✓	100	✓			38	45	45	13
4:00 P.M.	111	42				6.5	6.5	100		✓	100	✓			37	45	45	13
5:00 P.M.	111	43		5.61		6.5	6.5	100		✓	100	✓			39	45	45	13
6:00 P.M.	112	44		.351		6.5	6.5	100		✓	100	✓			38	45	45	13
7:00 P.M.	110	43				6.5	6.5	100		✓	100	✓			38	45	45	13
8:00 P.M.	112	43				6.5	6.5	100		✓	100	✓			37	45	45	13
9:00 P.M.	109	42				6.5	6.5	100		✓	100	✓			37	45	45	13
10:00 P.M.	112	43				6.45	6.5	100		✓	100	✓			38	45	45	13
11:00 P.M.	112	44				6.5	6.5	100		✓	100	✓			38	45	45	13

12:00 P.M. J. Pinkerton

1:00 P.M. [illegible]

REMARKS: EVERC. MOD Dampers & Soda Ash Controls Ifon

SEP 26 1981 " " 6:20 PM. 4-12

1 PM

	Gross Load (MW)	Regen Flow %	P.H. Required	Conductivity	Avg. P.H.	North P.H.	South P.H.	Ash Control Valve Set Point	Control Valve (✓) Auto	Control Valve (✓) Man	Mill Control Valve Set Point	(✓) If On 601	602	603	Tank Level %	Mill Damper Psi	Damper Position	T.E.
12:00 AM	112	44		8.61		6.5	6.5	100		✓	100	✓			43	45	45	136
1:00 A.M.	111	44		.351		6.5	6.5	100		✓	100	✓			39	45	45	136
2:00 A.M.	113	48				6.4	6.5	100		✓	100	✓			46	45	45	136
3:00 A.M.	110	44				6.3	6.5	100		✓	100	✓			39	45	45	135
4:00 A.M.	110	44				6.4	6.5	100		✓	100	✓			37	45	45	136
5:00 A.M.	113	44				6.4	6.5	100		✓	100	✓			39	45	45	135
6:00 A.M.	112	44				6.4	6.5	100		✓	100	✓			39	45	45	134
7:00 A.M.	110	44				6.4	6.5	100		✓	100	✓			38	45	45	133
8:00 A.M.	112	44				6.3	6.5	100		✓	100	✓			38	45	45	133
9:00 A.M.	116	46		8.72		6.3	6.5	100		✓	100	✓			38	45	45	133
10:00 A.M.	111	45		.347		6.3	6.5	100		✓	100	✓			39	45	45	133
11:00 A.M.	113	45				6.5	6.5	100		✓	100	✓			34	45	45	133
12:00 P.M.	110	27				6.5	6.5	100		✓	100	✓			37	40	45	133
1:00 P.M.	110	30				6.5	6.5	100		✓	100	✓			32	40	40	133
2:00 P.M.	111	30				6.5	6.5	100		✓	100	✓			31	40	40	133
3:00 P.M.	114	30				6.5	6.5	100		✓	100	✓			32	40	40	133
4:00 P.M.	111	28				6.5	6.5	100		✓	100	✓			32	40	40	133
5:00 P.M.	112	29		8.56		6.5	6.5	100		✓	100	✓			34	40	40	133
6:00 P.M.	119	30		.344		6.5	6.5	100		✓	100	✓			34	40	40	133
7:00 P.M.	111	32				6.5	6.5	100		✓	100	✓			34	40	40	133
8:00 P.M.	110	35				6.5	6.5	100		✓	100	✓			36	40	40	133
9:00 P.M.	110	37				6.5	6.5	100		✓	100	✓			39	40	40	133
10:00 P.M.	109	38				6.5	6.5	100		✓	100	✓			36	40	40	133
11:00 P.M.	111	28				6.5	6.5	100		✓	100	✓			37	40	40	133

12-8 [illegible] SEP 27 1981

9-4 Paul Smith

Remarks: Exerc. mod Dampers + 500A Ash Reg. — 1245AM
" " 6:30PM (1+2) 9:45AM

	C-MS D M.W.	REGEN FLOW %	NORTH P.H.	SOUTH P.H.			SODA ASH TANK TEMP	SURGE TANK	NORTH SODA ASH AUTO	NORTH SODA ASH MAN	NORTH SODA ASH VALVE POS	NORTH SODA ASH 88 OPEN	NORTH SODA ASH 88 CLOSED	SOUTH SODA ASH AUTO	SOUTH SODA ASH MAN	SOUTH SODA ASH VALVE POS	SOUTH SODA ASH BYPASS OPEN	SOUTH SODA ASH BYPASS CLOSED	NORTH REGEN. BYPASS VALVE POS.	SOUTH REGEN. BYPASS VALVE POS.	SUMP PUMP TO TRICKLER	SLAKERS (✓) IF ON 601	SLAKERS (✓) IF ON 602	SLAKERS (✓) IF ON 603	NORTH MOD. DAMPER POS.	S. 88 POS.	STACK TEMP.	
1:00 A.M.																												
2:00 A.M.																												
3:00 A.M.																												
4:00 A.M.																												
5:00 A.M.																												
6:00 A.M.																												
7:00 A.M.																												
8:00 A.M.																												
9:00 A.M.																												
10:00 A.M.																												
11:00 A.M.																												
12:00 NOON																												
1:00 P.M.																												
2:00 P.M.	132	36	6.5	6.5			150	38	✓		100			✓		100		✓	0	0	No			✓	40	40	133	
3:00 P.M.	128	38	6.5	6.5			150	38	✓		100			✓		100		✓	0	0	No			✓	44	44	133	
4:00 P.M.	129	36	6.5	6.5			150	38	✓		100			✓		100		✓	0	0	NO			✓	45	45	134	
5:00 P.M.	128	38	6.5	6.5			150	39	✓		100			✓		100		✓	0	0	NO			✓	45	45	134	
6:00 P.M.	132	37	6.5	6.5			150	38	✓		100			✓		100		✓	0	0	NO			✓	45	45	134	
7:00 P.M.	130	36	6.5	6.5			150	40	✓		100			✓		100		✓	0	0	NO			✓	45	45	135	
8:00 P.M.	121	28	6.5	6.5			150	40	✓		100			✓		100		✓	0	0	NO			✓	40	40	135	
9:00 P.M.	107	26	6.5	6.5			150	38	✓		100			✓		100		✓	0	0	NO			✓	40	40	135	
10:00 P.M.	105	31	6.5	6.5			150	43	✓		100			✓		100		✓	0	0	NO			✓	40	40	134	
11:00 P.M.	109	30	6.5	6.5			150	44	✓		100			✓		100		✓	0	0	NO			✓	40	40	134	
12:00 MN.	110	38	6.5	6.5			149	41	✓		100			✓		100		✓	0	0	NO			✓	40	40	134	

(EXERC. MODS 6:20 pm 4-12)

12-8

B-Y SMITH

Y-D Schmitt

SEP 28 1981

	Gross Lon MW.	Regen Flow To	North P.H.	South P.H.			Soda Ash Tank Temp	Surge Tank	North Soda Ash Auto	North Soda Ash Manual	North Soda Ash Valve Pos	North Soda Ash B	North Soda Ash C	South Soda Ash Auto	South Soda Ash Manual	South Soda Ash Valve Pos	South Soda Ash Bypass Open	South Soda Ash Bypass Closed	North Regen. Bypass Valve Pos.	South Regen. Bypass Valve Pos.	Sump Pump To Trickner	Slakers (✓) If On 601	Slakers (✓) If On 602	Slakers (✓) If On 603	North Mod. Damper Pos.	South Damper Pos.	Stack Temp.	
1:00 A.M.	106	30	6.5	6.5			149	46	✓		100		✓	✓		100		✓	—	—	—			✓	40	40	134	
2:00 A.M.	105	36	6.5	6.5			149	39	✓		100		✓	✓		100		✓	—	—	—			✓	40	40	135	
3:00 A.M.	108	28	6.5	6.5			149	40	✓		100		✓	✓		100		✓	—	—	—			✓	40	40	136	
4:00 A.M.	108	38	6.5	6.5			149	34	✓		100		✓	✓		100		✓	—	—	—			✓	40	40	137	
5:00 A.M.	109	28	6.5	6.5			150	37	✓		100		✓	✓		100		✓	—	—	—			✓	40	40	137	
6:00 A.M.	110	42	6.5	6.5			150	37	✓		100		✓	✓		100		✓	—	—	—			✓	40	40	136	
7:00 A.M.	105	30	6.5	6.5			150	39	✓		100		✓	✓		100		✓	—	—	—			✓	40	40	135	
8:00 A.M.	108	32	6.5	6.5			150	39	✓		100		✓	✓		100		✓	—	—	—			✓	40	40	133	
9:00 A.M.	118	40	6.5	6.5			150	36	✓		100	✓	[illegible]	✓		100	✓	[illegible]	—	—	—			✓	42	42	135	
10:00 A.M.	187	42	6.5	6.5			150	38	✓		100	✓		✓		100	✓		—	—	—	[illegible]	[illegible]	✓	60	60	143	
11:00 A.M.	238	47	6.5	6.5			150	44	✓		100	✓		✓		100	✓		—	—	—	✓	✓	✓	60	60	145	
12:00 Noon	187	25	6.5	6.5			150	58	✓		100	✓		✓		100	✓		—	—	—	✓	✓	✓	50	50	142	
1:00 P.M.	170	26	6.5	6.5			150	52	✓		100	✓		✓		100	✓		—	—	—		✓		50	50	139	
2:00 P.M.	158	27	6.5	6.5			150	40	✓		100	✓		✓		100	✓		—	—	—	✓			45	45	135	
3:00 P.M.	153	35	6.5	6.5			150	40	✓		100	✓		✓		100	✓		—	—	—	✓			45	45	134	
4:00 P.M.	129	28	6.56	6.5			150	40	✓		100	✓		✓		100	✓		—	—	—	✓			45	45	133	
5:00 P.M.	110	25	6.6	6.5			150	40	✓		100	✓		✓		100	✓		—	—	—	✓			40	40	132	
6:00 P.M.	109	23	6.6	6.5			150	38	✓		100	✓		✓		100	✓		—	—	—	✓			40	40	134	
7:00 P.M.	109	24	6.6	6.5			150	38	✓		100	✓		✓		100	✓		—			✓			40	40	134	
8:00 P.M.	115	22	6.56	6.5			150	38	✓		100	✓		✓		100	✓		—	—	—	✓			40	40	134	
9:00 P.M.	111	20	6.6	6.5			150	40	✓		100	✓		✓		100	✓		—	—	—	✓			40	40	134	
10:00 P.M.	111	20	6.6	6.5			150	38	✓		100	✓		✓		100	✓		—	—	—	✓			40	40	134	
11:00 P.M.	109	20	6.6	6.5			150	36	✓		100	✓		✓		100	✓		—	—	—	✓			40	40	134	
12:00 MN.	113	24	6.6	6.5			150	37	✓		100	✓		✓		100	✓		—	—	—	✓			40	40	134	

12-8 Mont [illegible]
8-4 Smith
4-12 Vol. City

SEP 29 1981

EXCEPT MOD DAMPERS & SODA ASH REG @ 1230AM – 603's FEEDER RUNS 15% FAN [illegible]
CONTROLLER IS SET FOR – TR#2337 7-25-81 SO high ph LINE IS PULLED –
SODA ASH BYPASS VALVES OPEN 9AM, OTHER LINE PLUGGED
601 OFF NOON FINALLY 601 ON 2PM 602 OFF
603
Mark Ken Gilliam

	Gases m.w.	Regen Flow %	North P.H.	South P.H.			Soda Ash Tank Temp	Surge Tank	North Soda Ash Auto/Manual	North Soda Ash Valve Pos	North Soda Ash Bypass Open	North Soda Ash Bypass Closed	South Soda Ash Auto/Manual	South Soda Ash Valve Pos	South Soda Ash Bypass Open	South Soda Ash Bypass Closed	North Regen. Bypass Valve Pos.	South Regen. Bypass Valve Pos.	Sump Pump to Thickner	Slakers (✓) If On 601	602	603	North Mod. Damper Pos.	South Mod. Damper Pos.	Stack Temp.
1:00 A.M.	109	24	6.6	6.5			151	39	✓	100	✓		✓	100	✓					✓			40	40	134
2:00 A.M.	106	22	6.6	6.5			151	39	✓	100	✓		✓	100	✓					✓			40	40	133
3:00 A.M.	110	24	6.6	6.5			152	38	✓	100	✓		✓	100	✓					✓			40	40	133
4:00 A.M.	110	22	6.5	6.5			155	39	✓	100	✓		✓	100	✓					✓			40	40	133
5:00 A.M.	107	22	6.6	6.5			158	36	✓	100	✓		✓	100	✓					✓			40	40	133
6:00 A.M.	110	24	6.6	6.5			159	42	✓	100	✓		✓	100	✓					✓			40	40	132
7:00 A.M.	108	20	6.6	6.5			162	40	✓	100	✓		✓	100	✓					✓			35	35	138
8:00 A.M.	108	21	6.6	6.5			164	42	✓	100	✓		✓	100	✓					✓			40	40	131
9:00 A.M.	110	26	6.5	6.5			164	46	✓	100	✓		✓	100	✓							✓	40	40	133
10:00 A.M.	108	32	6.5	6.5			164	52	✓	100	✓		✓	100	✓							✓	45	45	137
11:00 A.M.	146	34	6.5	6.5			164	63	✓	100	✓		✓	100	✓							✓	45	45	137
12:00 Noon	180	35	6.5	6.5			164	70	✓	100	✓		✓	100	✓						✓	✓	45	45	146
1:00 P.M.	200	38	6.5	6.5			164	66	✓	100	✓		✓	100	✓						✓	✓	50	50	149
2:00 P.M.	230	40	6.5	6.4			164	62	✓	100	✓		✓	100	✓						✓	✓	65	65	157
3:00 P.M.	238	38	6.5	6.4			164	50	✓	100	✓		✓	100	✓						✓	✓	65	65	144
4:00 P.M.	173	30	6.5	6.5			165	31	✓	100	✓		✓	100	✓							✓	40	40	144
5:00 P.M.	183	30	6.5	6.5			168	29	✓	100	✓		✓	100	✓						✓	✓	55	55	162
6:00 P.M.	190	34	6.5	6.5			168	39	✓	100	✓		✓	100	✓						✓	✓	55	55	147
7:00 P.M.	200	36	6.5	6.4			169	39	✓	100	✓		✓	100	✓						✓	✓	55	55	144
8:00 P.M.	210	37	6.5	6.35			168	38	✓	100	✓		✓	100	✓						✓	✓	55	55	147
9:00 P.M.	195	39	6.5	6.3			168	36	✓	100	✓		✓	100	✓						✓	✓	55	55	144
10:00 P.M.	165	34	6.5	6.45			168	39	✓	100	✓		✓	100	✓						✓	✓	50	50	140
11:00 P.M.	113	33	6.5	6.5			168	38	✓	100	✓		✓	100	✓						✓	✓	40	40	137
12:00 MN.	112	27	6.5	6.5			168	30	✓	100	✓		✓	100	✓							✓	40	40	136

EXERC MOD + SODA ASH REG 1230AM / 10:30AM - 5:40 PM -

601 OFF 603 ON 8:20AM

603 ON @ 505 PM -

12-8 Rustler

8-4 Smitty

4-12 MD

SEP 30 1981

	Grass L M.W.	Regen Flow %	North P.H.	South P.H.			Soda Ash Tank Temp	Surge Tank	North Soda Ash Auto	North Soda Ash Manual Valve Pos	North Soda Ash Bypass Regen	North Soda Ash Bypass Closed	South Soda Ash Auto	South Soda Ash Manual Valve Pos	South Soda Ash Bypass Regen	South Soda Ash Bypass Closed	North Regen. Bypass Valve Pos.	South Regen. Bypass Valve Pos.	Sump Pump to Trickler	Slakers (✓) If On 601	602	603	UU North Mod. Damper Pos.	UU South Mod. Damper Pos.	Stack Temp.
1:00 A.M.	109	30	6.5	6.5			168	30	✓	100		✓	✓	100		✓					✓	✓	40	40	136
2:00 A.M.	107	28	6.5	6.5			168	32	✓	100		✓	✓	100		✓					130	✓	40	40	136
3:00 A.M.	107	28	6.5	6.6			168	32	✓	100		✓	✓	100		✓						✓	40	40	136
4:00 A.M.	109	30	6.5	6.5			168	26	✓	100		✓	✓	100		✓						✓	40	40	136
5:00 A.M.	108	30	6.5	6.5			168	28	✓	100		✓	✓	100		✓						✓	40	40	136
6:00 A.M.	112	30	6.5	6.5			168	39	✓	100		✓	✓	100		✓						✓	40	40	136
7:00 A.M.	110	30	6.5	6.5			168	38	✓	100		✓	✓	100		✓						✓	40	40	136
8:00 A.M.	148	34	6.5	6.5			168	46	✓	100		✓	✓	100		✓						✓	50	50	140
9:00 A.M.	193	45	6.5	6.4			166	38	✓	100		✓	✓	100		✓					✓	✓	50	50	145
10:00 A.M.	162	46	6.4	6.4			167	40	✓	100		✓	✓	100		✓					✓	✓	50	50	137
11:00 A.M.	163	46	6.4	6.4			167	43	✓	100		✓	✓	100		✓					✓	✓	50	50	137
12:00 Noon	175	45	6.4	6.4			166	42	✓	100		✓	✓	100		✓					✓	✓	50	50	136
1:00 P.M.	175	46	6.4	6.4			166	42	✓	100		✓	✓	100		✓					✓	✓	50	50	140
2:00 P.M.	175	47	6.4	6.4			165	44	✓	100		✓	✓	100		✓					✓	✓	50	50	141
3:00 P.M.	165	47	6.4	6.4			160	44	✓	100		✓	✓	100		✓					✓	✓	50	50	138
4:00 P.M.	150	47	6.4	6.4			165	64	✓	100		✓	✓	100		✓					✓	✓	50	50	135
5:00 P.M.	145	47	6.45	6.5			165	64	✓	100		✓	✓	100		✓					✓	✓	45	45	136
6:00 P.M.	150	48	6.45	6.5			165	75	✓	100		✓	✓	100		✓					✓	✓	40	40	135
7:00 P.M.	150	49	6.5	6.5			165	85	✓	100		✓	✓	100		✓					✓	✓	40	40	137
8:00 P.M.	147	49	6.5	6.5			165	77	✓	100		✓	✓	100		✓					✓	✓	40	40	143
9:00 P.M.	145	48	6.5	6.5			165	84	✓	100		✓	✓	100		✓						✓	40	40	142
10:00 P.M.	110	42	6.5	6.5			165	57	✓	100		✓	✓	100		✓						✓	40	40	141
11:00 P.M.	108	42	6.5	6.5			165	36	✓	100		✓	✓	100		✓						✓	40	40	135
12:00 MN.	109	44	6.5	6.5			165	36	✓	100		✓	✓	100		✓						✓	40	40	

12-8 R. Smith
8-4 S. Smith
4-12 7 I.C.

11:00 Diam PERS & Soda Ash Reg Ex-Vc 12309 m/602 on For Running out of Fines / water & NaO2 - low Surg & tank
Soda Ash Valves in Service, Bypasses Closed 3:20 PM
602 off @ 7:40 PM —

	Grade L. M.W.	Regen Flow %	North P.H.	South P.H.			Soda Ash Tank Temp	Sauge Tank	North Soda Ash Auto/Hand	North Soda Ash Valve Pos	North Soda Ash Bypass Open	North Soda Ash Bypass Closed	South Soda Ash Auto/Hand	South Soda Ash Valve Pos	South Soda Ash Bypass Open	South Soda Ash Bypass Closed	North Regen. Bypass Valve Pos.	South Regen. Bypass Valve Pos.	Sump Pump to Trickner	Dumps (✓) 601	Dumps (✓) 602	Dumps (✓) 603	North Mud Drawer Pos.	South Mud Drawer Pos.	Stack Temp.
1:00 A.M.	108	44	6.5	6.5			160	36		✓ 100		✓		✓ 100		✓						✓	40	40	132
2:00 A.M.	107	44	6.5	6.5			165	34		✓ 100		✓		✓ 100		✓						✓	40	40	131
3:00 A.M.	109	43	6.45	6.5			165	30		✓ 100		✓		✓ 100		✓						✓	40	40	131
4:00 A.M.	104	43	6.4	6.4			164	24		✓ 100		✓		✓ 100		✓						✓	40	40	131
5:00 A.M.	109	43	6.4	6.4			164	18		✓ 100		✓		✓ 100		✓						✓	40	40	131
6:00 A.M.	111	45	6.4	6.4			164	38		✓ 100		✓		✓ 100		✓						✓	40	40	132
7:00 A.M.	107	45	6.4	6.4			164	36		✓ 100		✓		✓ 100		✓					✓	✓	40	40	131
8:00 A.M.	111	45	6.4	6.5			164	38		✓ 100		✓		✓ 100		✓					✓		40	40	133
9:00 A.M.	114	46	6.4	6.4			164	40		✓ 100		✓		✓ 100		✓					✓		35	40	133
10:00 A.M.	115	48	6.4	6.5			156	40		✓ 100		✓		✓ 100		✓					✓		40	35	133
11:00 A.M.	118	46	6.4	6.4			156	38		✓ 100		✓		✓ 100		✓					✓		40	35	134
12:00 Noon	119	47	6.4	6.5			158	38		✓ 100		✓		✓ 100		✓					✓		40	35	136
1:00 P.M.	111	47	6.4	6.5			158	46		✓ 100		✓		✓ 100		✓					✓		40	35	135
2:00 P.M.	117	48	6.4	6.5			158	60		✓ 100		✓		✓ 100		✓					✓	✓	40	35	134
3:00 P.M.	112	45	6.4	6.5			158	64		✓ 100		✓		✓ 100		✓					✓		40	35	138
4:00 P.M.	110	38	6.5	6.5			158	74		✓ 100		✓		✓ 100		✓							40	35	136
5:00 P.M.	110	34	6.5	6.5			158	74		✓ 100		✓		✓ 100		✓						✓	40	35	136
6:00 P.M.	115	32	6.5	6.5			156	62		✓ 100		✓		✓ 100		✓						✓	40	35	136
7:00 P.M.	117	33	6.5	6.5			158	53		✓ 100		✓		✓ 100		✓						✓	40	35	139
8:00 P.M.	120	35	6.5	6.5			158	40		✓ 100		✓		✓ 100		✓						✓	40	35	141
9:00 P.M.	115	33	6.5	6.5			158	30		✓ 100		✓		✓ 100		✓						✓	40	35	142
10:00 P.M.	115	35	6.5	6.5			158	40		✓ 100		✓		✓ 100		✓						✓	40	35	142
11:00 P.M.	110	36	6.5	6.5			158	39		✓ 100		✓		✓ 100		✓						✓	40	35	141
12:00 MN.	113	38	6.5	6.5			158	32		✓ 100		✓		✓ 100		✓						✓	40	35	140

12-8 J.L.C.

8-4 [illegible]

4-12 T.H.O.

EXCESS MUDS 4:45 PM OCT 02 1981

2:30PM & 6:50PM -

603 ON 13:30 PM 601 OFF 601 BACK ON 602 ON TO RUN FINES OUT 2AM

	Gross MW	Regen Flow %	North P.H.	South P.H.			Soda Ash Tank Temp	Surge Tank	North Soda Ash Auto	North Soda Ash Man	North Soda Ash Valve Pos	North Soda Ash Open	North Soda Ash Close	South Soda Ash Auto	South Soda Ash Man	South Soda Ash Valve Pos	South Soda Ash Bypass Open	South Soda Ash Bypass Closed	North Regen. Bypass Valve Pos.	South Regen. Bypass Valve Pos.	Sump Pump to Thickner	Slakers 601	Slakers 602	Slakers 603	UU1 North Mod. Damper Pos.	UU1 South Mod Damper Pos.	UU1 Stack Temp.
1:00 A.M.	110	18	6.56	6.6			158	40		✓	100		✓		✓	100		✓							0	0	202
2:00 A.M.	114	15	6.6	6.6			158	48		✓	100		✓		✓	100		✓							0	0	206
3:00 A.M.	110	15	6.6	6.6			158	60		✓	100		✓		✓	100		✓							0	0	209
4:00 A.M.	114	18	6.5	6.6			158	78		✓	100		✓		✓	100		✓						✓	40	40	191
5:00 A.M.	112	32	6.45	6.5			158	48		✓	100		✓		✓	100		✓						✓	40	40	142
6:00 A.M.	116	38	6.45	6.5			158	36		✓	100		✓		✓	100		✓						✓	40	40	140
7:00 A.M.	121	40	6.45	6.5			158	42		✓	100		✓		✓	100		✓						✓	45	40	140
8:00 A.M.	127	38	6.45	6.5			158	39		✓	100		✓		✓	100		✓						✓	45	45	139
9:00 A.M.	135	38	6.45	6.5			158	40		✓	100		✓		✓	100		✓						✓	42	42	145
10:00 A.M.	116	36	6.45	6.5			158	41		✓	100		✓		✓	100		✓						✓	42	42	134
11:00 A.M.	113	35	6.45	6.5			158	37		✓	100		✓		✓	100		✓						✓	42	42	137
12:00 Noon	113	37	6.5	6.5			158	40		✓	100		✓		✓	100		✓						✓	40	40	135
1:00 P.M.	112	37	6.5	6.5			158	38		✓	100		✓		✓	100		✓					✓	✓	40	40	136
2:00 P.M.	112	32	6.5	6.5			158	52		✓	100		✓		✓	100		✓					✓	✓	40	40	135
3:00 P.M.	112	35	6.5	6.5			158	52		✓	100		✓		✓	100		✓						✓	40	40	135
4:00 P.M.	112	36	6.5	6.5			158	56		✓	100		✓		✓	100		✓						✓	40	40	135
5:00 P.M.	115	30	6.5	6.5			160	56		✓	100		✓		✓	100		✓						✓	40	40	136
6:00 P.M.	115	32	6.5	6.5			160	39		✓	100		✓		✓	100		✓						✓	40	40	136
7:00 P.M.	115	35	6.5	6.5			160	39		✓	100		✓		✓	100		✓						✓	40	40	138
8:00 P.M.	120	33	6.5	6.5			160	39		✓	100		✓		✓	100		✓						✓	40	40	137
9:00 P.M.	115	32	6.5	6.5			160	40		✓	100		✓		✓	100		✓						✓	40	40	138
10:00 P.M.	110	36	6.5	6.5			160	41		✓	100		✓		✓	100		✓						✓	40	40	134
11:00 P.M.	113	37	6.5	6.5			157	39		✓	100		✓		✓	100		✓						✓	40	40	135
12:00 MN.	116	36	6.5	6.5			158	40		✓	100		✓		✓	100		✓						✓	40	40	135

12-8 C. J. Lind
8-4 BAD
4-12 J.J.O

Exerc. Mods 4:20 AM & 8:00 PM –
" " 1:30 PM / 602 Slakers on 1:00 PM to clean fines out / 2:30 PM 602 Slakers off

OCT 04 1981

	Gross L m.w.	Regen Flow %	North P.H.	South P.H.	Soda Ash Tank Temp	Surge Tank	North Soda Ash Valve Pos	North Soda Ash Bypass Valve Pos	South Soda Ash Valve Pos	South Soda Ash Bypass Valve Pos	North Regen. Bypass Valve Pos.	South Regen Bypass Valve Pos.	Sump Pump to Thickner	Slakers (✓) If On 601	602	603	North Mud Dumper Pos.	South Mud Dumper Pos.	Stack Temp
1:00 A.M.	113	38	6.5	6.5		37	✓100	✓	✓100	✓						✓	40	40	135
2:00 A.M.	110	38	6.5	6.5		20	✓100	✓	✓100	✓						✓	40	40	134
3:00 A.M.	115	38	6.5	6.5		18	✓100	✓	✓100	✓						✓	40	40	134
4:00 A.M.	111	35	6.5	6.5		22	✓100	✓	✓100	✓						✓	40	40	133
5:00 A.M.	112	33	6.5	6.5		24	✓100	✓	✓100	✓						✓	40	40	133
6:00 A.M.	112	38	6.5	6.45		46	✓100	✓	✓100	✓						✓	40	40	132
7:00 AM	112	38	6.5	6.45		46	✓100	✓	✓100	✓						✓	40	40	137
8:00 A.M.	110	30	6.5	6.5	166	66	✓100	✓	✓100	✓						✓	40	40	138
9:00 A.M.	110	44	6.5	6.5	171	51	✓100	✓	✓100	✓						✓	40	40	132
10:00 A.M.	110	40	6.5	6.5	174	51	✓100	✓	✓100	✓						✓	40	40	130
11:00 A.M.	115	18	6.5	6.5	176	80	✓100	✓	✓100	✓						✓	40	40	150
12:00 Noon	113	25	6.5	6.5	176	74	✓100	✓	✓100	✓						✓	40	40	136
1:00 P.M.	111	24	6.5	6.55	176	68	✓100	✓	✓100	✓						✓	40	40	135
2:00 P.M	111	20	6.5	6.5	174	74	✓100	✓	✓100	✓						✓	40	40	134
3:00 P.M	110	36	6.5	6.5	172	55	✓100	✓	✓100	✓						✓	40	40	136
4:00 P.M	113	34	6.5	6.55	172	54	✓100	✓	✓100	✓						✓	40	40	137
5:00 P.M.	113	34	6.5	6.55	172	54	✓100	✓	✓100	✓						✓	40	40	137
6:00 P.M.	113	32	6.5	6.5	172	66	✓100	✓	✓100	✓						✓	40	40	138
7:00 P.M.	112	35	6.5	6.5	172	70	✓100	✓	✓100	✓						✓	40	40	138
8:00 P.M	113	32	6.5	6.55	170	62	✓100	✓	✓100	✓						✓	40	40	138
9:00 P.M.	112	33	6.5	6.55	170	51	✓100	✓	✓100	✓						✓	40	40	139
10:00 P.M.	113	33	6.5	6.5	170	57	✓100	✓	✓100	✓						✓	40	40	137
11:00 P.M.	117	30	6.5	6.5	170	45	✓100	✓	✓100	✓						✓	45	45	137
12:00 MN.	112	30	6.5	6.5	170	62	✓100	✓	✓100	✓						✓	45	45	

12-8 Schmith
8-4 Rooker
4-12 [illegible]

Exerc. Mode 7:26 AM, 4:30 PM
" " 8:30 AM + Soda Ash REQ —
603 Slaker off something in feeder off @ 11:15 PM
602 Slaker on 100% Manual on @ 11:15 PM —

OCT 05 1981

	Gross MW	Regen Flow %	North PH	South PH	Soda Ash Tank Temp	Surge Tank	North Soda Ash: Auto	North Soda Ash: Man	North Soda Ash: Valve Pos	North Soda Ash: Bypass Open	North Soda Ash: Bypass Closed	South Soda Ash: Auto	South Soda Ash: Man	South Soda Ash: Valve Pos	South Soda Ash: Bypass Open	South Soda Ash: Bypass Closed	North Regen. Bypass Valve Pos.	South Regen. Bypass Valve Pos.	Sump Pump to Thickner	Slakers (✓) If On: 601	602	603	North Mod. Damper Pos.	South Mod. Damper Pos.	Stack Temp.
1:00 A.M.	113	[illegible]	6.5	6.5		92		✓	100		✓		✓	100		✓				✓			40	40	133
2:00 A.M.	111	40	6.5	6.5		96		✓	100		✓		✓	100		✓							40	40	134
3:00 A.M.	111	40	6.5	6.5		100		✓	100		✓		✓	100		✓				✓			40	40	135
4:00 A.M.	111	38	6.5	6.5		96		✓	100		✓		✓	100		✓				✓			40	40	137
5:00 A.M.	111	36	6.5	6.5		94		✓	100		✓		✓	100		✓				✓			40	40	136
6:00 A.M.	113	37	6.5	6.5		88		✓	100		✓			100		✓				✓			40	40	137
7:00 A.M.	116	36	6.5	6.5		94		✓	100		✓		✓	100		✓				✓			40	40	137
8:00 A.M.	110	42	6.5	6.5	165	93		✓	100		✓		✓	100		✓				✓			40	41	135
9:00 A.M.	120	37	6.5	6.5	164	72		✓	100		✓		✓	100		✓				✓	✓		40	40	138
10:00 A.M.	152	45	6.5	6.5	164	52		✓	100		✓		✓	100		✓				✓	✓		40	40	145
11:00 A.M.	168	45	6.5	6.5	152	42	✓		100		✓	✓		100		✓				✓	✓	✓	50	50	140
12:00 Noon	186	45	6.5	6.3	157	40	✓		100		✓	✓		100		✓				✓		✓	50	50	144
1:00 P.M.	193	45	6.5	6.3	162	32	✓		100		✓	✓		100		✓					✓	✓	50	50	147
2:00 P.M.	213	50	6.5	6.3	162	24	✓		100		✓	✓		100		✓					✓	✓	55	55	150
3:00 P.M.	218	50	6.45	6.3	162	28	✓		100		✓	✓		100		✓					✓	✓	55	55	145
4:00 P.M.	220	50	6.4	6.4	162	27	✓		100		✓	✓		100		✓		5 PM			✓	✓	60	60	149
5:00 P.M.	225	50	6.45	6.4	163	29	✓		[illegible]		✓	✓		[illegible]		✓		✓		✓	✓		70	70	152
6:00 P.M.	215	50	6.4	6.35	162	31	✓		100		✓	✓		100		✓		✓		✓		✓	80	80	154
7:00 P.M.	225	50	6.4	6.3	167	32	✓		100		✓	✓		100		✓		✓		✓		✓	80	80	146
8:00 P.M.	225	50	6.4	6.3	162	27	✓		100		✓	✓		100		✓		✓		✓		✓	80	80	144
9:00 P.M.	215	50	6.4	6.3	162	34	✓		[illegible]		✓	✓		100		✓		✓		✓		✓	70	70	144
10:00 P.M.	130	50	6.4	6.4	162	36	✓		100		✓	✓		100		✓		✓		✓		✓	60	60	143
11:00 P.M.	110	38	6.55	6.5	162	32	✓		100		✓	✓		100		✓						✓	50	50	142
12:00 MN.	108	44	6.45	6.45	162	32	✓		100		✓	✓		100		✓						✓	40	40	141

12-8 [illegible]
8-4 [illegible]
4-12 [illegible]

Expect mode 3:20 AM
" " 8:30 AM
Soda Ash ON AUTO per Bill Phelps @ 1100 am
expect Soda Ash Reg 6800 AM - 602 Locked up — 601 off 1220 pm 602 on MAN 603 auto
603 locked up — 601 on @ 4:35 PM — 602 on 515 PM

OCT 06 1981

	Gross MW	Regen Flow %	North P.H.	South P.H.			Soda Ash Tank Temp	Surge Tank	North Soda Ash Auto/Manual	North Soda Ash Valve Pos	North Soda Ash By Pass Open	North Soda Ash By Pass Closed	South Soda Ash Auto/Manual	South Soda Ash Valve Pos	South Soda Ash By Pass Open	South Soda Ash By Pass Closed	North Regen. By Pass Valve Pos.	South Regen. By Pass Valve Pos.	Sump Pump To Thickner	Slakers (✓) If On 601	602	603	North Mod. Damper Pos.	South Mod. Damper Pos.	Stack Temp.
1:00 A.m.	111	44	6.5	6.45				36	✓			✓	✓			✓						✓	40	40	144
2:00 A.m.	119	44	6.5	6.45				37	✓			✓	✓			✓						✓	40	40	146
3:00 A.m.	115	44	6.45	6.45				32	✓			✓	✓			✓						✓	45	40	143
4:00 A.m.	116	43	6.45	6.45				36	✓			✓	✓			✓						✓	45	40	142
5:00 A.m.	110	44	6.45	6.4				38	✓			✓	✓			✓						✓	45	45	142
6:00 A.m.	114	43	6.45	6.45				38	✓			✓	✓			✓						✓	45	45	142
7:00 A.m.	123	44	6.45	6.45				39	✓			✓	✓			✓						✓	48	48	142
8:00 A.m.	128	45	6.4	6.4			162	38	✓			✓	✓			✓						✓	50	50	140
9:00 A.m.	157	45	6.4	6.3			162	35	✓			✓	✓			✓						✓	50	50	141
10:00 A.m.	154	45	6.3	6.3			162	35	✓			✓	✓			✓						✓	50	50	141
11:00 A.m.	170	44	6.3	6.15			162	27	✓			✓	✓			✓		OPEN 60%		✓		✓	50	50	145
12:00 Noon	176	52	6.2	6.3			162	40	✓			✓	✓			✓	OPEN 60%	"		✓		✓	50	50	143
1:00 P.m.	156	54	6.3	6.4			158	46	✓			✓	✓			✓	"	"		✓		✓	50	50	135
2:00 P.m	168	55	6.3	6.45			161	49	✓			✓	✓			✓	"	"			✓	✓	50	50	136
3:00 P.m	165	54	6.3	6.45			161	39	✓			✓	✓			✓	"	"			✓	✓	50	50	137
4:00 P.m	138	53	6.3	6.5			160	40	✓			✓	✓			✓					✓	✓	50	50	136
5:00 P.m	133	52	6.3	6.5			160	40	✓			✓	✓			✓					✓	✓	50	50	134
6:00 P.m.	120	51	6.3	6.5			160	38	✓			✓	✓			✓					✓	✓	40	40	130
7:00 P.m.	132	52	6.5	6.55			160	40	✓			✓	✓			✓					✓	✓	50	50	140
8:00 P.m	130	49	6.5	6.55			160	44	✓			✓	✓			✓					✓	✓	50	50	137
9:00 P.m.	120	45	6.45	6.5			160	44	✓			✓	✓			✓					✓	✓	45	45	134
10:00 P.m.	117	55	6.4	6.4			160	54	✓			✓	✓			✓					✓	✓	40	40	133
11:00 P.m.	127	48	6.4	6.45			160	62	✓			✓	✓			✓						✓	40	40	142
12:00 MN.	122	46	6.4	6.5			160	60	✓			✓	✓			✓						✓	40	40	143

12-8 Schmidt
8-4 ~~Rowley~~
4-12 MD

Equal rate 4% Ca(OH)2

Open mod 830am & 6:30 PM — 279

Open soda ash Reg 830am

601 on @ 1030AM

601 off 130, 602 on 130 pm

602 off @ 1050 PM —

OCT 07 1981

	Gr L MW	Regen Flow %	North PH	South PH			Soda Ash Tank Temp	Surge Tank	North Soda Ash Auto/Manual	North Soda Ash Valve Pos	North Soda Ash Bypass Open	North Soda Ash Bypass Closed	South Soda Ash Auto/Manual	South Soda Ash Valve Pos	South Soda Ash Bypass Open	South Soda Ash Bypass Closed	North Regen. Bypass Valve Pos.	South Regen. Bypass Valve Pos.	Sump Pump To Trickwer	Slakers (✓) If On 601	602	603	North Mod. Damper Pos.	South Mod. Damper Pos.	Stack Temp	
1:00 A.m.	122	47	6.4	6.5			160	50	✓	100		✓	✓	100		✓						✓	40	45	126	
2:00 A.m.	117	52	6.4	6.45			160	54	✓	100		✓	✓	100		✓						✓	40	45	132	
3:00 A.M.	113	53	6.35	6.5			160	42	✓	100		✓	✓	100		✓						✓	40	45	132	
4:00 A.m.	114	53	6.35	6.5			160	38	✓	100		✓	✓	100		✓						✓	40	45	131	
5:00 A.m.	117	48	6.35	6.5			160	38	✓	100		✓	✓	100		✓						✓	40	45	130	
6:00 A.m.	116	54	6.35	6.5			158	38	✓	100		✓	✓	100		✓						✓	40	45	134	4
7:00 A.m	123	54	6.3	6.5			159	37	✓	100		✓	✓	100		✓						✓	40	45	138	8
8:00 A.m.	118	54	6.45	6.4			159	37	✓	100		✓	✓	100		✓						✓	40	40	135	5
9:00 A.m	116	54	6.45	6.5			159	37	✓	100		✓	✓	100		✓						✓	40	40	136	6
10:00 A.m	119	46	6.45	6.5			156	39	✓	100		✓	✓	100		✓							40	40	132	
11:00 A.m.	119	52	6.4	6.4			156	46	✓	100		✓	✓	100		✓				✓	✓		40	40	135	
12:00 Noon	157	58	6.4	6.3			156	66	✓	100		✓	✓	100		✓				✓	✓		40	40	133	
1:00 P.m.	177	58	6.3	6.3			156	70	✓	100		✓	✓	100		✓				✓	✓		60	60	129	
2:00 P.m.	178	60	6.3	6.3			156	84	✓	100		✓	✓	100		✓					✓	✓	50	50	134	
3:00 P.m	178	60	6.4	6.3			156	96	✓	100		✓	✓	100		✓					✓		50	50	136	
4:00 P.m.	158	60	6.4	6.5			156	96	✓	100		✓	✓	100		✓					✓	✓	50	50	133	
5:00 P.m.	147	60	6.4	6.5			156	96	✓	100		✓	✓	100		✓					✓	✓	50	50	131	
6:00 P.m.	150	56	6.5	6.5			156	86	✓	100		✓	✓	100		✓					✓	✓	40	40	134	
7:00 P.m.	139	57	6.5	6.5			156	68	✓	100		✓	✓	100		✓					✓	✓	50	50	142	
8:00 P.m.	252	55	6.3	6.3			156	48	✓	100		✓	✓	100		✓					✓	✓	65	65	145	
9:00 P.m.	261	54	6.2	6.3			156	34	✓	100		✓	✓	100		✓					✓	✓	65	65	144	
10:00 P.m.	260	53	6.1	6.3			156	28	✓	100		✓	✓	100		✓					✓	✓	60	60	145	
11:00 P.M.	255	53	6.1	6.3			156	30	✓	100		✓	✓	100		✓					✓	✓	60	60	145	
12:00 MN.	226	53	6.15	6.3			156	30	✓	100		✓	✓	100		✓					✓	✓	50	50	142	

12-8 Lori Fitt
8-4 Ron Ellis
4-12 Smith

EXER MOD dampers + Soda Ash Rug 830AM / 603 plugged Low water pressure 1045AM
601 on @ 1100AM / 603 on 115PM 601 off
603 Cut-Off Spray On Regen.

	Gross Lo. M.W.	Regen Flow %	North P.H.	South P.H.			Soda Ash Tank Temp	Surge Tank	North Soda Ash Auto	North Soda Ash Valve Pos	North Soda Ash Pump	South Soda Ash Eductor	South Soda Ash Valve Pos	South Soda Ash Bypass Open	South Soda Ash Bypass Closed	North Regen. Bypass Valve Pos.	South Regen. Bypass Valve Pos.	Sump Pump To Thickner	Slakers (✓) If On 601	Slakers (✓) If On 602	Slakers (✓) If On 603	North Main Damper Pos.	South Main Damper Pos.	Stack Temp.
1:00 A.M.	147	54	6.1	6.1				38	✓	100		✓	✓		✓						✓	50	50	131
2:00 A.M.	147	54	6.15	6.4				38	✓	100		✓	✓		✓						✓	50	50	137
3:00 A.M.	150	55	6.15	6.4				40	✓	100		✓	✓		✓						✓	45	50	129
4:00 A.M.	150	55	6.15	6.4				40	✓	100		✓	✓		✓						✓	40	50	127
5:00 A.M.	150	56	6.3	6.3				40	✓	100		✓	✓		✓						✓	40	50	131
6:00 A.M.	161	56	6.4	6.3				41	✓	100		✓	✓		✓						✓	40	50	135
7:00 A.M.	200	56	6.35	6.4				48	✓	100		✓	✓		✓						✓	50	50	142
8:00 A.M.	245	58	6.15	6.25			152	51	✓	100		✓	✓	100	✓	OPEN 5 PDS	OPEN 5 PDS				✓	60	60	148
9:00 A.M.	244	62	6.15	6.3			157	51	✓	100		✓	✓	100	✓	"	"				✓	60	60	144
10:00 A.M.	255	64	5.9	6.4			157	64	✓	100		✓	✓	100	✓	"	"				✓	55	55	154
11:00 A.M.	255	62	7.0	6.45			157	66	✓	100		✓	✓	100	✓	"	"		✓	✓		60	60	156
12:00 Noon	242	60	6.3	6.45			157	72	✓	100		✓	✓	100	✓	"	"		✓	✓	✓	60	60	141
1:00 P.M.	240	62	6.3	6.5			161	92	✓	100		✓	✓	100	✓	"	"		✓	✓	✓	60	60	139
2:00 P.M.	243	61	6.3	6.5			162	92	✓	100		✓	✓	100	✓	"	"			✓	✓	55	55	149
3:00 P.M.	241	58	6.3	6.5			162	76	✓	100		✓	✓	100	✓	"	"			✓	✓	20	20	152
4:00 P.M.	244	58	6.4	6.4			160	55	✓	100	✓	✓	100	✓	5	5			✓	✓	60	60	183
5:00 P.M.	238	51	6.3	6.4			160	12	✓	100	✓	✓	100	✓	5	5			✓	✓	60	60	147
6:00 P.M.	232	57	6.3	6.5			160	56	✓	100	✓	✓	100	✓	5	5			✓	✓	60	60	154
7:00 P.M.	250	57	6.3	6.5			160	40	✓	100	✓	✓	100	✓	5	5			✓	✓	60	60	147
8:00 P.M.	250	58	6.3	6.5			160	52	✓	100	✓	✓	100	✓	5	5			✓	✓	60	60	147
9:00 P.M.	253	55	6.2	6.5			160	30	✓	100	✓	✓	100	✓	5	5			✓	✓	60	60	148
10:00 P.M.	252	56	6.2	6.5			160	34	✓	100	✓	✓	100	✓	5	5			✓	✓	60	60	147
11:00 P.M.	245	55	6.2	6.5			160	34	✓	100	✓	✓	100	✓	5	5			✓	✓	60	60	147
12:00 MN.	240	49	6.2	6.5			160	37	✓	100	✓	✓	100	✓	5	5			✓	✓	60	60	146

12-8 J. I - S

8-4 Perry Bell

4-12 South

OCT 08 1981

Open mod 2:30 AM — 6:50 PM

Lime mud + Soda ash Rec'd @ 830AM / Color @ 1030 AM Poor pb - 603 plugged up 1035AM
601 off 115PM 603 on Regen Line Xfrmr plugged 250PM 603 unclogged 1230PM

CHEMICAL ANALYSES DATA

Graphic Data Presentation of

SIGECO Analytical Data

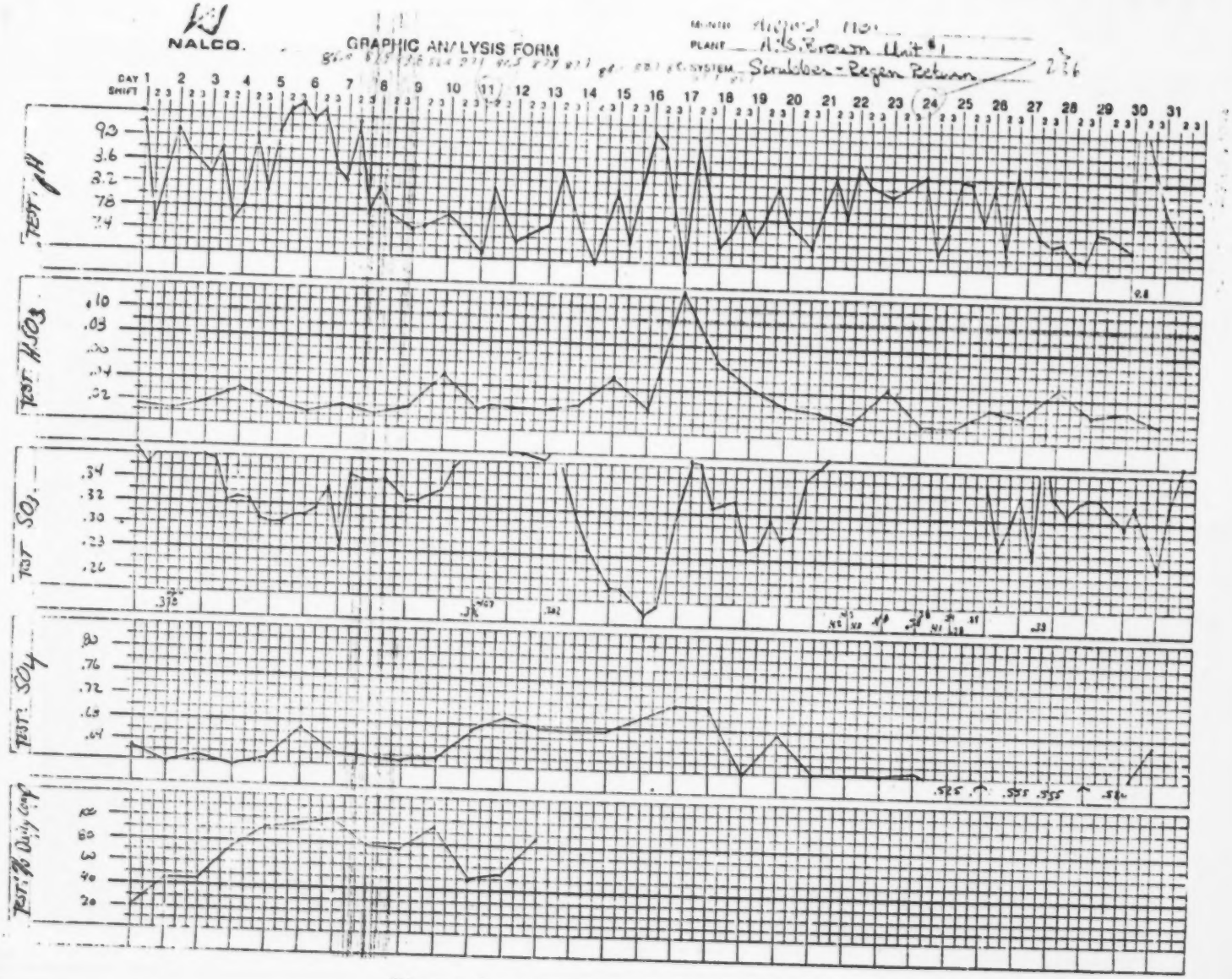

Figure 1. August Analytical Data.

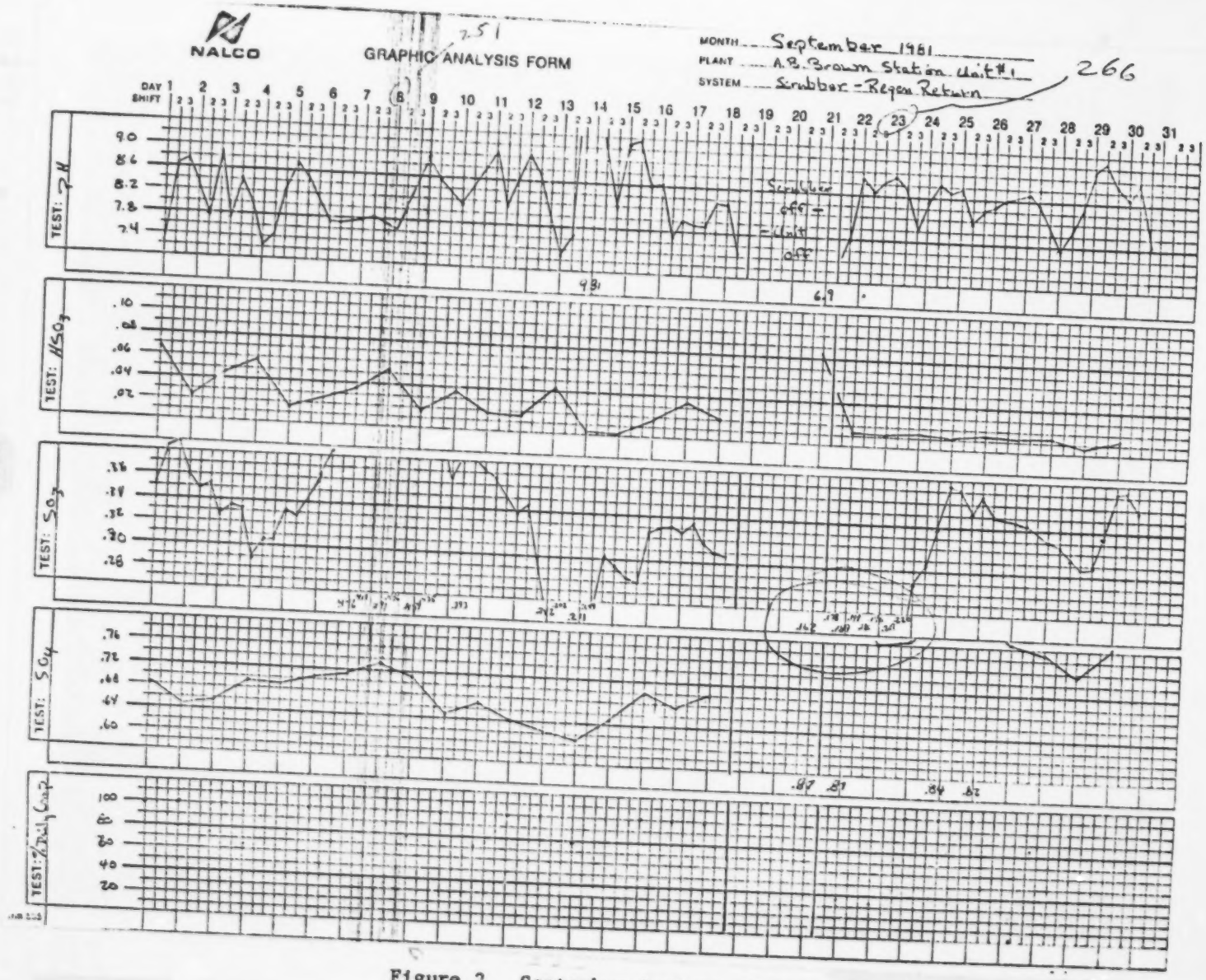

Figure 2. September Analytical Data.

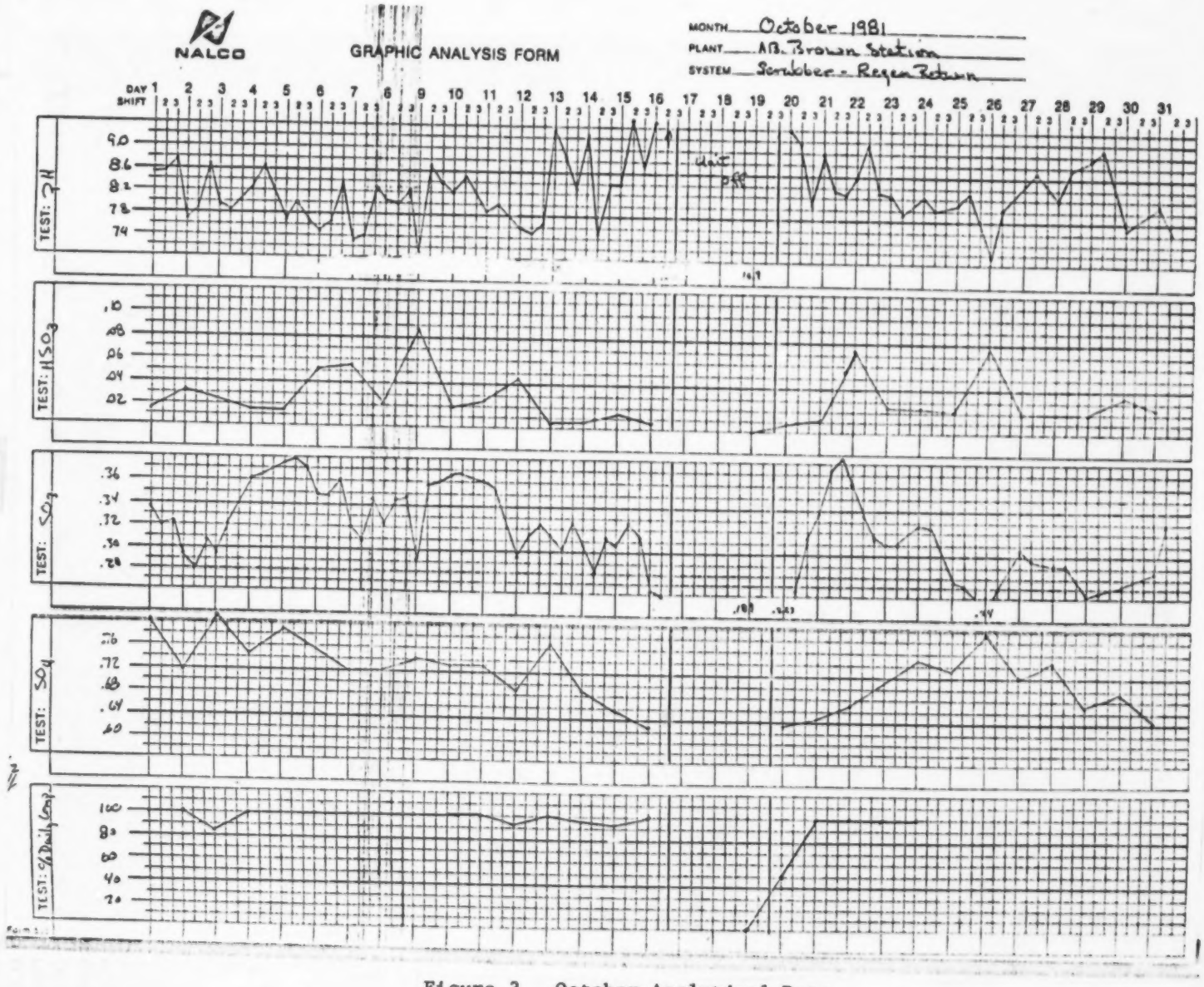

Figure 3. October Analytical Data.

TABLE 71

Routine Chemical Data Generated

by SIGECO

SIGECO A. B. BROWN STATION - NORTH SCRUBBER

	MON	TUES	WED	THUR	FRI	SAT	SUN
DATE	7	8-4	8-5	8-6	8-7	8-8	8-9
TIME							
TEMP.							
SPEC. G.	1.097	1.100	1.092	1.094	1.100	1.113	1.126
AM LOCAL	6.58	6.4	6.4	6.6	6.43	6.6	6.43
pH LAB	6.44	6.4	6.7	7.56	7.40	6.54	6.43
HSO_3^-	.3122	.2976	.2712	.1201	.0960	3550	.0565
$SO_3^=$	.2147	.1961	.1761	.3938	.3321	2422	.11
$SO_4^=$							
4:00P LOCAL	6.60	6.35	6.5	6.5	6.17		
LAB	6.63	6.39	6.5	6.5	6.5		
10:30P LOCAL	6.5	6.5	6.55	6.5	6.6		
pH LAB	6.3	6.42	6.9	6.74	6.6		

SOUTH SCRUBBER

	MON	TUES	WED	THUR	FRI	SAT	SUN
DATE				8-6	8-7	8-8	8-9
TIME							
TEMP.							
SPEC. G.				1.098	1.110	1.124	1.127
AM LOCAL	6.5			6.6	6.5	6.5	6.5
pH LAB				7.02	6.52	6.6	6.57
HSO_3^-				.1716	.2116	3870	
$SO_3^=$				.2157	.2582	2793	
$SO_4^=$							
4:00p LOCAL			6.5	6.3	6.5		
LAB			6.7	6.5	6.53		
10:30p LOCAL			6.5	6.6	6.65		
pH LAB			6.70	6.7	6.5		

UNIT 1 SCRUBBER ANALYSIS

REGENERATED RETURN

	MON	TUES	WED	THUR	FRI	SAT	SUN
DATE	8-3	8-4	8-5	8-6	8-7	8-8	8-9
TIME							
TEMP							
SPEC. G.	1.100	1.098	1.096	1.102	1.100	1.094	1.102
AM pH	8.59	7.82	9.13	7.8	8.33	7.19	7.52
HSO_3^-	.0134	.0132	.0120	.0112	.0121	.0112	.0121
$SO_3^=$	.3635	.3254	.3377	.3126	.3219	.3426	.3245
$SO_4^=$	.6100	.6178	.6100	.6110	.6115		.6105
chloride							
3:00p pH	8.51	9.02	9.5	9.49	9.34	7.75	7.58
SO_3	.3578	.3235	.3025	.3183	.3409	.3426	.3345
10:30p pH	8.70	8.70	8.60		7.75		
SO_3	.3219	.3285	.3104	.3357	.3421		

OTHER SCRUBBER pHS & FILTER CAKE

DATE	8-6						
TIME							
LOCATION	NS						
pH LOCAL	7.5						
LAB	7.2						
REQUEST BY							
RUN BY	CFS						
DATE							
FILTER #							
% sol.							
% insol.							
% moist.							
% alkali							

SIGECO A. B. BROWN STATION -

NORTH SCRUBBER

	MON	TUES	WED	THUR	FRI	SAT	SUN
DATE	8-10	8-11	8-12	8-13	8-14	8-15	8-16
TIME							
TEMP.							
SPEC. G.	1.112	1.110	1.120	1.118	1.110	1.086	1.101
AM LOCAL	6.97	6.96	6.96	6.93	6.85	6.97	6.96
pH LAB	7.07	7.06	6.99	6.98	6.98	7.00	7.01
HSO_3^-	1332	1920	2295	2400	3720	0729	1800
$SO_3^=$	2581	3798	2946	2814	2503	2259	
$SO_4^=$							
4:00P LOCAL							
LAB							
10:30P LOCAL							
pH LAB							

SOUTH SCRUBBER

	MON	TUES	WED	THUR	FRI	SAT	SUN
DATE	8-10	8-11	8-12	8-13	8-14	8-15	8-16
TIME							
TEMP.							
SPEC. G.	1.114	1.122	1.132	1.114	1.110	1.102	1.117
AM LOCAL	6.99	6.95	6.95	6.95	6.93	6.93	6.96
pH LAB	6.96	6.97	6.98	6.92	6.89	6.85	6.91
HSO_3^-	3150	3750	3415	2745	3510	2910	1615
$SO_3^=$	1585	2608	2614	2729	1981	1825	2142
$SO_4^=$							
4:00p LOCAL							
LAB							
10:30p LOCAL							
pH LAB							

UNIT 1 SCRUBBER ANALYSIS

REGENERATED RETURN

	MON	TUES	WED	THUR	FRI	SAT	SUN
DATE	8-10	8-11	8-12	8-13	8-14	8-15	8-16
TIME							
TEMP.							
SPEC. G.	1.076	1.092	1.090	1.090	1.098	1.089	1.095
AM pH	7.12	7.10	7.29	7.69	7.44	8.25	7.17
HSO_3^-							
$SO_3^=$							
$SO_4^=$		6110			6771	6771	
chloride							
3:00p pH		8.71	7.71	8.58	6.97	7.36	7.02
SO_2			3719				
10:30p pH							
SO_3							

OTHER SCRUBBER pHS & FILTER CAKE

DATE	8-11	8-11					
TIME							
LOCATION	E	N.S.					
pH LOCAL	7.43	7.18					
LAB	7.76	6.66					
REQUEST BY	L.F.	L.F.					
RUN BY							
DATE							
FILTER #							
% sol.							
% insol.							
% moist.							
% alkali							

SIGECO A. B. BROWN STATION

NORTH SCRUBBER

	MON	TUES	WED	THUR	FRI	SAT	SUN
DATE	8-17	8-18	8-19	8-20	8-21	8-22	8-23
TIME							
TEMP.							
SPEC. G.	1.120	1.116	1.098	1.096	1.100	1.100	1.100
AM LOCAL pH	6.5	6.5	6.6	6.5	6.6	6.6	6.47
LAB	6.6	6.5	6.6	6.53	6.75	6.2	6.47
HSO_3^-	2215	2700	1620	2112	1308	2356	1620
$SO_3^=$	3150	2828	2238	2471	2761	2463	3323
$SO_4^=$							
4:00P LOCAL	6.66	6.56	6.52	6.48	6.41		
LAB	6.66	6.55	6.47	6.47	6.41		
10:30P LOCAL	6.6	6.58	6.43	6.38	6.36		
pH LAB	6.6	6.51	6.35	6.38	6.25		

SOUTH SCRUBBER

	MON	TUES	WED	THUR	FRI	SAT	SUN
DATE	8-17	8-18	8-19	8-20	8-21	8-22	8-23
TIME							
TEMP.							
SPEC. G.	1.112	1.114	1.100	1.102	1.100	1.101	1.102
AM LOCAL pH	6.4	6.13	6.15	6.47	6.53	6.50	6.48
LAB	6.55	6.16	6.23	6.40	6.42	6.51	6.50
HSO_3^-	2165	1980	2140	2100	2592	2173	2256
$SO_3^=$	2895	2671	2819	2927	3336	3185	3003
$SO_4^=$							
4:00p LOCAL		6.57	6.41	6.48	6.42		
LAB		6.4	6.33	6.41	6.43		
LOCAL	6.58	6.62	6.38	6.61	6.45		
LAB	6.71	6.17	6.28	6.39	6.4		

UNIT 1 SCRUBBER ANALYSIS

REGENERATED RETURN

	MON	TUES	WED	THUR	FRI	SAT	SUN	
DATE	8-17	8-18	8-19	8-20	8-21	8-22	8-23	
TIME								
TEMP.								
SPEC. G.	1.110	1.108	1.099	1.102	1.100	1.100	1.098	
AM pH	6.21	7.33	7.41	6.75	7.12	7.61	8.29	8.62
HSO_3^-	.1350	.067	.0542	.0478	.0321	.0181	.0468	.0
$SO_3^=$	.3223	.3250	.3440	.3121	.3601	<.322	.4074	.3775
$SO_4^=$ chloride	7.28	7198	6.91	6.91	6.91	6.91	.6859	.610
3:00p pH	7.18	7.53	7.87	7.52	3.87	3.16		
SO_2	3649	3295	3219	.3200	.3710	4190		
10:30p pH	8.22	7.98	8.39	7.32	7.87			
SO_3	.3615	.3307	.3176	.3564	.4177			

OTHER SCRUBBER pHS & FILTER CAKE

DATE								
TIME								
LOCATION								
pH LOCAL								
LAB								
REQUEST BY								
RUN BY								
DATE								
FILTER #								
% sol.								
% insol.								
% moist.								
% alkali								

SIGECO A. B. BROWN STATION

NORTH SCRUBBER

	MON	TUES	WED	THUR	FRI	SAT	SUN
DATE	4	5	6	27	28	29	30
TIME							
TEMP.							
SPEC. G.	1.102	1.086	1.096	1.100	1.090	1.090	1.094
AM LOCAL pH		6.35	6.5	6.56	6.6	6.6	6.5
LAB		6.41	6.47	6.52	6.47	6.62	6.45
HSO_3^-	.274	.2886	1955	3300	.2400	.1760	2205
$SO_3^=$		.2611	.2865	.3003	.2421	.0311	.2329
$SO_4^=$							
4:00P LOCAL	6.52	6.52	OFF	6.62	6.66		
LAB	6.41	6.52		6.52	6.55		
10:30P LOCAL pH	6.52	6.52	6.50	6.66	6.57		
LAB	6.54	6.52	6.41	6.56	6.62		

SOUTH SCRUBBER

	MON	TUES	WED	THUR	FRI	SAT	SUN
DATE	4	5	6	27	28	29	30
TIME							
TEMP.							
SPEC. G.	1.102	1.080	1.090	1.100	1.092	1.100	1.100
AM LOCAL pH	6.3	6.45	6.4	6.33	6.45	6.4	6.5
LAB	6.47	6.5	6.35	6.33	6.45	6.39	6.32
HSO_3^-	.244	.2116	.2415	.2661	.2376	.2100	.2460
$SO_3^=$	.3243	.2105	.1917	.2564	.2502	.2574	.2242
$SO_4^=$							
4:00p LOCAL	6.32	6.32	OFF	6.41	6.45		
LAB	6.24	6.24		6.34	6.4		
0p LOCAL pH	6.36	6.42	6.36	6.42	6.45		
LAB	6.41	6.42	6.48	6.35	6.5		

UNIT 1 SCRUBBER ANALYSIS

REGENERATED RETURN

	MON	TUES	WED	THUR	FRI	SAT	SUN
DATE	4.24	25	26	27	28	29	30
TIME							
TEMP							
SPEC. G.	1.090	1.090	1.094	1.080	1.080	1.090	1.092
AM pH	8.62	8.58	8.52	8.03	7.53	7.75	7.41
HSO_3^-	014	0132	.030	.022	.050	.027	.030
$SO_3^=$	3745	.3813	.3511	.3406	.3393	.3406	>1.0
$SO_4^=$	.610	.5216	5917	.5551	5557	5968	.5715
chloride							
3:00p pH	7.25	8.56	7.29	7.60	7.25	7.69	9.80
SO_3	.3788	.3767	.2937	.2330	.324	.3406	.3389
10:30p pH	7.64	7.60	8.76	7.46	7.19		
SO_3	.4147	.3949	.3170	.3782	.3351		

OTHER SCRUBBER pHS & FILTER CAKE

DATE							
TIME							
LOCATION							
pH LOCAL							
LAB							
REQUEST BY							
RUN BY							
DATE							
FILTER #							
% sol.							
% insol.							
% moist.							
% alkali							

SIGECO A. B. BROWN STATION -

NORTH SCRUBBER

DATE / TIME	MON	TUES	WED	THUR	FRI	SAT	SUN
		9-1	9-2	9-3	9-4	9-5	6
TEMP.							
SPEC. G.		1.106	1.106	1.106	1.102	1.100	1.100
AM LOCAL pH		6.6	6.65	6.54	6.61	6.46	6.50
AM LAB pH		6.56	6.82	6.54	6.76	6.66	6.54
HSO_3^-		.2165	.1644	.2100	.1060	.1392	.1680
$SO_3^=$		.5409	.2623	.2100	.2572	.2572	.3477
$SO_4^=$							
4:00P LOCAL pH	6.5	6.6	6.6	6.6	6.45		
LAB pH	6.4	6.55	6.6	6.6	6.41		
10:30P LOCAL pH	6.5	6.6	6	6.6	6.5	6.45	
LAB pH	6.48	6.6	6.64	6.52	6.54		

SOUTH SCRUBBER

DATE / TIME	MON	TUES	WED	THUR	FRI	SAT	SUN
		9-1	9-2	9-3	9-4	9-5	6
TEMP.							
SPEC. G.		1106	1.108	1.110	1.102	1.108	1.120
AM LOCAL pH		6.48	6.48	6.40	6.52	6.44	6.45
AM LAB pH		6.51	6.55	6.42	6.57	6.42	6.6
HSO_3^-		.2256	.2732	.2520	.2018	.2148	.2416
$SO_3^=$		.2683	.2544	.2127	.2002	.2725	.2912
$SO_4^=$							
4:00p LOCAL pH	6.2	6.3	6.4	6.0	6.32		
LAB pH	6.2	6.3	6.4	6.25	6.29		
10:30p LOCAL pH	6.5	6.2	6.45	6.5			
LAB pH	6.53	6.2	6.5	6.3			

UNIT 1 SCRUBBER ANALYSIS

REGENERATED RETURN

DATE / TIME	MON	TUES	WED	THUR	FRI	SAT	SUN
	8-31	9-1	9-2	9-3	9-4	9-5	6
TEMP.							
SPEC. G.	1.110	1.098	1.100	1.100	1.102	1.099	1.100
AM pH	8.10	7.26	8.31	7.76	7.26	9.75	7.76
HSO_3^-	.0420	.0472	.0228	.0456	.0588	.0168	.0277
$SO_3^=$	.3186	.3518	.3601	.3254	.2892	.3523	.3442
$SO_4^=$	.6432	.6432	.6466	.6588	.6454	.6893	.7076
chloride							
3:00p pH	7.76	8.166	7.79	8.42	7.44	8.471	7.75
SO_3	.3328	.3851	.3490	.3365	.3059	.3771	.3442
10:30p pH	7.37	8.15	8.94	8.01	8.14		
SO_3	.3685	.3881	.3523	.3325	.3058		

OTHER SCRUBBER pHS & FILTER CAKE

DATE								
TIME								
LOCATION								
pH LOCAL								
LAB								
REQUEST. BY								
RUN BY								
DATE								
FILTER #								
% sol.								
% insol.								
% moist.								
% alkali								

SIGECO A. B. BROWN STATION - UNIT 1 SCRUBBER ANALYSIS

NORTH SCRUBBER

	MON	TUES	WED	THUR	FRI	SAT	SUN
DATE	9-7	9-8	9-9	9-10	9-11	9-12	13
TIME							
TEMP.							
SPEC. G.	1.114	1.122	1.118	1.100	1.102	1.094	1.090
AM LOCAL pH	6.46	6.57	6.60	6.50	6.48	6.26	6.50
LAB	6.56	6.45	6.10	6.40	6.12	6.76	6.47
HSO_3^-	.1800	.2376	.1896	.2100	.2904	.1164	.1094
$SO_3^=$	.3373	.3476	.3364	.2474	.1849	.2683	.1585
$SO_4^=$							
4:00P LOCAL							
LAB							
10:30P LOCAL pH							
LAB							

REGENERATED RETURN

	MON	TUES	WED	THUR	FRI	SAT	SUN
DATE	9-7	9-8	9-9	9-10	9-11	9-12	13
TIME							
TEMP-							
SPEC. G.	1.110	1.110	1.120	1.092	1.098	1.114	1.094
AM pH	7.79	7.62	7.88	9.16	9.06	7.04	7.35
HSO_3^-	.0360	.0540	.0168	.0336	.0180	.0216	.042
$SO_3^=$	.4421	.4713	.4588	.3656	.3726	.3377	.2419
$SO_4^=$	.7137	.7320	.7137	.6166	.6710	.6402	.6222
chloride							
3:00p pH-	7.63	8.04	8.58	8.47	8.12	8.73	7.65
SO_3	.4129	.4964	.4351	.3934	.3670	.3447	.2016
10:30p pH							
SO_3							

SOUTH SCRUBBER

	MON	TUES	WED	THUR	FRI	SAT	SUN
DATE	9-7	9-8	9-9	9-10	9-11	9-12	13
TIME							
TEMP.							
SPEC. G.	1.126	1.128	1.118	1.100	1.102	1.098	1.094
AM LOCAL pH	6.46	6.40	6.47	6.24	6.10	6.46	6.30
LAB	6.33	6.37	6.45	6.23	6.12	6.50	6.31
HSO_3^-	.2320	.2556	.2269	.2544	.2844	.1872	.1740
$SO_3^=$	.3685	.3837	.3142	.2099	.1904	.2237	.1682
$SO_4^=$							
4:00p LOCAL							
LAB							
10:30p LOCAL							

OTHER SCRUBBER pHS & FILTER CAKE

DATE	
TIME	
LOCATION	
pH LOCAL	
LAB	
REQUEST BY	
RUN BY	
DATE	
FILTER #	
% sol.	
% insol.	
% moist.	
% alkali	

SIGECO A. B. BROWN STATION

NORTH SCRUBBER

	MON	TUES	WED	THUR	FRI	SAT	SUN
DATE	9-14	9-15	9-16	17	18	19	20
TIME							
TEMP.							
SPEC. G.	1.088	1.100	1.110	1.108	1.106		
AM LOCAL	6.62	6.6	6.6	6.6	6.5		
pH LAB	6.42	6.60	6.73	6.69	6.63		
HSO_3^-	.1344	.2225	.1800	.1524	.1548		
$SO_3^=$	.1265	.2532	.2988	.2796	.2376		
$SO_4^=$							
4:00P LOCAL	6.40	6.65	6.60	6.60	6.15		
LAB	6.43	6.70	6.61	6.74	6.54		
10:30P LOCAL	6.60	6.58	6.65	6.74			
pH LAB	6.67	6.60	6.74	6.75			

SOUTH SCRUBBER

	MON	TUES	WED	THUR	FRI	SAT	SUN
DATE	9-14	9-15	9-16	17	18	19	20
TIME							
TEMP.							
SPEC. G.	1.086	1.102	1.100	1.114	1.116		
AM LOCAL	6.22	6.5	6.5	6.4	6.45		
pH LAB	6.19	6.48	6.48	6.36	6.40		
HSO_3^-	.1644	.2029	.2448	.2508	.2184		
$SO_3^=$	.1071	.2424	.2700	.2364	.2352		
$SO_4^=$							
4:00p LOCAL	6.27	6.5	6.5	6.45	6.35		
LAB	6.23	6.51	6.53	6.42	6.35		
10:30p LOCAL	6.40	6.5	6.4	6.45			
pH LAB	6.21	6.41	6.45	6.45			

UNIT 1 SCRUBBER ANALYSIS

REGENERATED RETURN

	MON	TUES	WED	THUR	FRI	SAT	SUN
DATE	9-14	9-15	9-16	17	18	19	20
TIME							
TEMP.							
SPEC. G.	1.080	1.092	1.100	1.100	1.102		
AM pH	9.81	9.80	8.63	7.94	7.80		
HSO_3^-	.0024	.0022	.018	.0216	.0220		
$SO_3^=$	.2113	.2028	.3764	.3264	.3204		
$SO_4^=$	.6100	.6512	.701	.677	.701		
chloride			850				
3:00p pH	9.27	9.85	7.71	7.94	7.98		
$SO_3^=$	.2489	.2850	.331	.3336	.308		
10:30p pH	8.20	8.60	9.02	8.33			
$SO_3^=$	.3058	.2805	.3315	.3180			

OTHER SCRUBBER pHS & FILTER CAKE

DATE	
TIME	
LOCATION	
pH LOCAL	
LAB	
REQUEST BY	
RUN BY	
DATE	
FILTER #	
% sol.	
% insol.	
% moist.	
% alkali	

SIGECO A. B. BROWN STATION - NORTH SCRUBBER

	MON	TUES	WED	THUR	FRI	SAT	SUN
DATE	9-21	22	23	24	25	26	9-27
TIME							
TEMP.							
SPEC. G.		1.117	1.110	1.120	1.126	1.122	1.125
AM LOCAL pH		6.5	6.45	6.5	6.6	6.6	6.50
LAB		6.31	6.48	6.9	6.5	6.5	6.74
HSO_3^-		.1548	.1440	.1170	.1770	.1725	.1740
$SO_3^=$		.1152	.1365	.2775	.2925	.2895	.2676
$SO_4^=$							
4:00P LOCAL	/	6.50	6.54	6.80	6.55		
LAB			6.50	6.25	6.31		
10:30P LOCAL		6.45	6.60	6.55	6.55		
pH LAB	6.43	6.45	6.60	6.72	6.73		

SOUTH SCRUBBER

	MON	TUES	WED	THUR	FRI	SAT	SUN
DATE	9-21	22	23	24	25	26	9-27
TIME							
TEMP.							
SPEC. G.		1.112	1.120	1.140	1.150	1.144	1.129
AM LOCAL pH		6.3	6.4	6.4	6.4	6.4	6.45
LAB		6.11	6.4	6.38	6.42	6.41	6.62
HSO_3^-		1884	1725	2050	2350	2265	2148
$SO_3^=$		.0912	1215	.2220	3555	2730	.2532
$SO_4^=$							
4:00p LOCAL	/	6.51	6.50	6.45	6.5		
LAB			6.49	6.47	6.54		
10:30p LOCAL	Sat	6.35	6.25	6.45	6.30		
pH LAB	6.35	6.39	6.25	6.50	1.59		

UNIT 1 SCRUBBER ANALYSIS

REGENERATED RETURN

	MON	TUES	WED	THUR	FRI	SAT	SUN
DATE	9-21	22	23	24	25	26	9-27
TIME							
TEMP.							
SPEC. G.	1.110	1.100	1.104	1.112	1.120	1.122	1.122
AM pH	6.4	8.89	8.96	8.52	8.77	8.45	8.72
HSO_3^-	.0840	.0132	.0132	.0150	.0132	.0195	.0144
$SO_3^=$	.1620	.1896	.1915	.2115	.3600	.3675	.3468
$SO_4^=$	.8723	.8723	.8205	.8113	.8418	.8235	.8113
chloride							
3:00p pH		8.47	8.72	8.52	8.15	8.41	8.52
SO_3		.1915	.2340	.3375	.3720		.3345
10:30p pH	7.80	8.52	8.00	8.71	8.41		
SO_3	.1785	.1890	.2340	.3390	.3510		

OTHER SCRUBBER pHS & FILTER CAKE

DATE							
TIME							
LOCATION							
pH LOCAL							
LAB							
REQUEST BY							
RUN BY							
DATE							
FILTER #							
% sol.							
% insol.							
% moist.							
% alkali							

SIGECO A. B. BROWN STATION

NORTH SCRUBBER

	MON	TUES	WED	THUR	FRI	SAT	SUN
DATE	9.28	29	30	10-1	10-2	10-3	10-4
TIME							
TEMP.							
SPEC. G.	1.134	1130	1140	1138	1120	1120	1120
AM LOCAL	6.5	6.40	6.70	6.60	6.45	6.50	6.63
pH LAB	6.52	6.34	6.71	6.25	6.54	6.55	6.68
HSO_3^-	.2175	.2112	.2535	.3540	.1980	.1680	.1536
$SO_3^=$	.2430	.2520	.3105	.1716	.2064	.2196	.2664
$SO_4^=$							
4:00P LOCAL	6.5	6.61	6.68	6.51	6.45		
LAB	6.5	6.54	6.67	6.48	6.49		
10:30P LOCAL	6.62	6.68	6.65	6.58	6.60		
pH LAB	6.62	6.64	6.64	6.47	6.54		

SOUTH SCRUBBER

	MON	TUES	WED	THUR	FRI	SAT	SUN
DATE	9.28	29	30	10-1	10-2	10-3	10-4
TIME							
TEMP.							
SPEC. G.	1.130	1130	1144	1130	1130	1142	1142
AM LOCAL	6.4	6.50	6.45	6.47	6.5*	6.5	6.40
pH LAB	6.41	6.48	6.47	6.5	6.80	6.52	6.45
HSO_3^-	.2550	.2376	.2925	.2520	.2189	.2472	.2640
$SO_3^=$	.2250	.2064	.3060	.2292	.1649	.3120	.3300
$SO_4^=$							
4:00p LOCAL	6.44	6.44	6.47	6.47	6.47		
LAB	6.40	6.40	6.44	6.47	6.44		
10:30p LOCAL	6.47	6.48	6.49	6.44	6.43		
pH LAB	6.45	6.48	6.50	6.46	6.40		

UNIT 1 SCRUBBER ANALYSIS

REGENERATED RETURN

	MON	TUES	WED	THUR	FRI	SAT	SUN
DATE	9.28	29	30	10-1	10-2	10-3	10-4
TIME							
TEMP.							
SPEC. G.	1.1[illegible]	1130	1128	1120	1120	1118	1120
AM pH	7.76	7.10	8.64	8.53	7.70	7.46	8.07
HSO_3^-	.015	.007	.019	.0199	.0312	.025	.0156
$SO_3^=$	3300	.3691	.3720	.3372	.2940	.2952	.3612
$SO_4^=$	7930	7564	8113	3252	7108	8113	7462
chloride							
3:00p pH	8.12	7.28	8.98	8.56	6.85	7.83	8.65
SO_3	3250	3090	3750	3270	2790	3225	3705
10:30p pH	8.45	8.89	7.81	8.77	8.67		
SO_3	3144	3372	3588	3252	3168		

OTHER SCRUBBER pHS & FILTER CAKE

DATE											
TIME											
LOCATION											
pH LOCAL											
LAB											
REQUEST BY											
RUN BY											
DATE											
FILTER #	0										
% sol.											
% insol.											
% moist.											
% alkali											

SIGECO A. B. BROWN STATION - NORTH SCRUBBER

	MON	TUES	WED	THUR	FRI	SAT	UN
DATE	10-6	10-6	10-7	10-8	10-9		
TIME							
TEMP.							
SPEC. G.	1.130	1.126	1.120	1120	1.120		
AM LOCAL pH	6.6	6.5	6.5	6.45	6.20		
AM LAB	6.6	6.49	6.54	6.46	6.25		
HSO_3^-	.2760	.2532	.1956	.2292	.3120		
$SO_3^=$	.1730	.2508	.2508	.2280	.1884		
$SO_4^=$							
4:00P LOCAL	6.58	6.49	6.2	6.38			
LAB	6.51	6.49	6.24	6.4			
10:30P LOCAL	6.65	6.56	6.10	6.22			
pH LAB	6.58	6.52	6.17	6.32			

SOUTH SCRUBBER

	MON	TUES	WED	THUR	FRI	SAT	SUN
DATE	10-6	10-6	10-7	10-8	10-9		
TIME							
TEMP.							
SPEC. G.	1.130	1.130	1130	1.130	1.120		
AM LOCAL pH	6.4	6.35	6.30	6.20	6.15		
AM LAB	6.45	6.09	6.29	6.18	6.17		
HSO_3^-	.3745	.3012	.2676	.3000	.3840		
$SO_3^=$	.2325	.2712	.2400	.2136	.1512		
$SO_4^=$							
4:00p LOCAL	6.43	6.47	6.11	6.29			
LAB	6.47	6.44	6.17	6.24			
10:30p LOCAL	6.42	6.46	6.03	6.40			
	6.45	6.47	6.11	6.37			

UNIT 1 SCRUBBER ANALYSIS REGENERATED RETURN

	MON	TUES	WED	THUR	FRI	SAT	SUN
DATE	10-6	10-6	10-7	10-8	10-9		
TIME							
TEMP.							
SPEC. G.	1.120	1120	1120	1.140	1110		
AM pH	7.71	7.46	7.32	8.05	7.10		
HSO_3^-	015	.0516	.056	.0216	.0288		
$SO_3^=$	.3715	.3492	.3504	.3216	.2928		
$SO_4^=$	.7930	.7564	.7212	.7212			
chloride							
3:00p pH	8.00	7.66	7.39	8.01			
SO_3	.379	3490	.3090	.3450			
10:30p pH	7.67	8.36	8.31	8.26			
SO_3	.3708	.3612	.3456	.3480			

OTHER SCRUBBER pHS & FILTER CAKE

DATE								
TIME								
LOCATION								
pH LOCAL								
LAB								
REQUEST BY								
RUN BY								
DATE								
FILTER #								
% sol.								
% insol.								
% moist.								
% alkali								

TABLE 72

SIGECO Monthly Reports

(Aug., Sept., Oct., 1981)

August 1981 AUGUST 1981 MONTHLY COAL REPORT — J. B. BROWN STATION

Date	% As Received				Ash Fusion Temperature - Reducing/Oxidizing									
	Moisture	Ash	Sulfur	BTU/lb	Initial Deform.		Softening (H=W)		Softening (H=kW)		Fluid		Grindability	
C.C	13.00	$10.00	≤ 4.00	≥ 11,000					≥ 2035				≥ 59	
B.C	12.32	9.71	3.75	11,143			2000						59	
8-4	12.63	8.99	3.25	11340										
8-5	11.42	8.43	3.42	11497										
8-11	10.60	9.02	4.28	11506										
8-12	9.40	9.83	3.83	12907										
8-19	10.92	9.78	4.04	11595										
8-20	11.15	9.18	3.81	11462										
8-25	10.98	9.40	3.69	11483	2050	2395	2110	2465	2190	2500	2335	2545		
8-26	11.00	10.52	3.49	11201										
Average	11.01	9.39	3.73	11537										
Plant														
8-5B	12.0	9.02	2.82	11566										
8-5C	11.86	8.74	3.53	11325	2060	2390	2135	2435	2215	2485	2360	2545	58	60
8-12C	9.56	9.25	4.13	11666										
8-19B	14.00	12.71	2.71	12662										
8-19C	12.71	8.74	3.49	11737	2040	2400	2135	2465	2210	2520	2350	2595	60	
8-26B	8.2	8.56	4.05	11994										
8-26C	10.60	8.65	3.45	11682										
Average	11.28	9.38	3.45	11673										

September 1981 MONTHLY COAL REPORT — J. B. BROWN STATION

Date	% As Received Moisture	Ash	Sulfur	BTU/lb	Ash Fusion Temperature - Reducing/Oxidizing Initial Deform.		Softening (H=W)		Softening (H=WW)		Fluid		Grindability
C.C	13.00	≤10.00	≤ 4.00	≥ 11,000	Potential SO_3 Emissions				≥ 2035				≥ 59
B.C	12.32	9.71	3.75	11,143		lb/MM	2000						59
Mine													
9-2 A	11.04	9.25	4.19	11553									
9-3 A	10.40	9.20	4.25	11495									
9-10 A	12.8	12.25	2.21	10987									
9-11 A	8.6	12.01	3.54	11782									
9-16 A	12.60	9.88	3.53	11367									
9-17 A	12.00	10.63	3.61	11167									
9-23 A	11.60	9.70	3.05	11241									
9-24 A													
9-30 A	10.20	9.23	3.16	11199									
Plant Sample													
Average	9.91	9.11	3.13	11,632									
9-2 B	9.80	8.00	2.72	11597									
C	10.29	9.09	3.85	11516									
9-9 B	9.40	9.73	3.42	11645									
C	11.47	8.47	3.93	11509									
9-16 B	11.00	8.86	3.68	11728	2133	% N							
C	11.83	8.88	3.68	11379	2050	2400	2100	2480	2165	2520	2260	2575	53 Fluid Sam. 2173
9-23 B	13.2	10.63	2.17	11483									
C	12.21	8.74	3.51	11423									
9-30 B	10.00	10.54	2.62	12039									
C	9.90	8.15	3.56	11778	2030	2345	2225	2445	2285	2460	2352	2535	54

October 1981 MONTHLY COAL REPORT A. B. BROWN STATION

Date	% As Received Moisture	Ash	Sulfur	BTU/lb	Ash Fusion Temperature - Reducing/Oxidizing Initial Deform.		Softening (H=W)		Softening (H=1/2W)		Fluid		Grindability	
C.C	13.00	≤10.00	≤ 4.00	≥11,000					≥ 2035				≥ 59	
B.C	12.32	9.71	3.75	11,143			2000						59	
Mine														
10-1	9.20	10.97	3.23	11360										
K-7	10.60	9.99	4.03	12018										
10-2	11.20	9.70	3.77	11937										
10-14	11.40	10.54	3.19	11317										
10-15	12.96	8.87	3.20	11795										
10-21	10.75	9.35	4.19	11420										
10-22	13.77	8.51	3.15	11853										
10-28	11.90	8.95	3.96	11460										
10-27	11.20	9.94	4.12	11662										
Average	11.38	9.59	3.65	11420										
Plant														Pyrit & Sulfur
10-7 C	10.14	8.63	3.71	11710	2025	2395	2095	2490	2210	2540	2335	2590	54	2.03
10-14 C	6.64	8.87	3.04	12019										
B	10.60	5.78	2.02	11841										
10-21 C	12.11	8.76	3.07	11332	2045	2415	2150	2485	2230	2520	2300	2545	52	
B	13.4	10.37	2.42	10987										
10-28	11.04	9.11	3.04	11366										
Average	10.66	8.59	2.89	11543										

TABLE 73

Supplier Coal Reports

COALFIELD RESEARCH, INC.

722 MAXWELL AVENUE • EVANSVILLE, INDIANA 47711 • TELEPHONE 424-2909 OR 424-2907

October 2, 1981

SIGECO
A.B. Brown Station
c/o Gary Frank
P.O. Box 569
Evansville, IN 47741

IN RE: Date Received: 9/30/81
Date Completed: 10/2/81
Identification: Plant Sample 9/30/81

Laboratory Analysis No. 0981630

PROXIMATE ANALYSIS	As Received Basis	Air Dried Basis	Dry Basis
% Moisture	9.90	6.94	0
% Ash	8.15	8.42	9.05
% Volatile			
% Fixed Carbon			
Total Percentage			
Btu/lb.	11,778	12,165	13,073
% Sulfur	3.56	3.68	3.95
Moisture-Ash Free, Btu/lb.			14,374

SULFUR FORMS

% Pyritic Sulfur	
% Sulfate Sulfur	
% Organic Sulfur	
% Total Sulfur	

FUSION TEMPERATURE OF ASH	Reducing	Oxidizing
Initial Deformation	2030 °F	2395 °F
Softening (Height = Width)	2225 °F	2445 °F
Softening (Height = ½ Width)	2285 °F	2480 °F
Fluid	2350 °F	2535 °F

FREE SWELLING INDEX =
HARDROVE GRINDABILITY INDEX = 54

REMARKS

Respectfully submitted,

COALFIELD RESEARCH, INC.

Timothy O. Steiner

TOS:tmm

COALFIELD RESEARCH, INC.

722 MAXWELL AVENUE • EVANSVILLE, INDIANA 47711 • TELEPHONE 424-2909 OR 424-2907

August 28, 1981

SIGECO
A.B. Brown Station
c/o Gary Frank
P.O. Box 569
Evansville, IN 47741

IN RE: Date Received: 8/27/81
Date Completed: 8/28/81
Identification: Plant Sample
8/26/81

Laboratory Analysis No. 0881759

PROXIMATE ANALYSIS	As Received Basis	Air Dried Basis	Dry Basis
% Moisture	10.60	7.62	0
% Ash	8.65	8.94	9.68
% Volatile			
% Fixed Carbon			
Total Percentage			
Btu/lb.	11,682	12,072	13,068
% Sulfur	3.45	3.57	3.86
Moisture-Ash Free, Btu/lb.			14,468

SULFUR FORMS

% Pyritic Sulfur	
% Sulfate Sulfur	
% Organic Sulfur	
% Total Sulfur	

FUSION TEMPERATURE OF ASH	Reducing	Oxidizing
Initial Deformation	°F	°F
Softening (Height = Width)	°F	°F
Softening (Height = ½ Width)	°F	°F
Fluid	°F	°F

FREE SWELLING INDEX =
HARDROVE GRINDABILITY INDEX =
REMARKS

Respectfully submitted,

COALFIELD RESEARCH, INC.

Timothy O. Steiner

TOS: tmm

COALFIELD RESEARCH, INC.

722 MAXWELL AVENUE • EVANSVILLE, INDIANA 47711 • TELEPHONE 424-2909 OR 424-2907

September 15, 1981

SIGECO
A.B. Brown Station
c/o Gary Frank
P.O. Box 569
Evansville, IN 47741

IN RE: Date Received: 9/11/81
Date Completed: 9/15/81
Identification: Plant Belt Sample 9/9/81

Laboratory Analysis No. 0981190

PROXIMATE ANALYSIS	As Received Basis	Air Dried Basis	Dry Basis
% Moisture	11.47	6.51	0
% Ash	8.47	8.95	9.57
% Volatile	39.55	41.77	44.68
% Fixed Carbon	40.51	42.77	45.75
Total Percentage	100.00	100.00	100.00
Btu/lb.	11,509	12,154	13,000
% Sulfur	3.93	4.15	4.44
Moisture-Ash Free, Btu/lb.			14,376

SULFUR FORMS

% Pyritic Sulfur
% Sulfate Sulfur
% Organic Sulfur
% Total Sulfur

FUSION TEMPERATURE OF ASH	Reducing	Oxidizing
Initial Deformation	°F	°F
Softening (Height = Width)	°F	°F
Softening (Height = ½ Width)	°F	°F
Fluid	°F	°F

FREE SWELLING INDEX =
HARDROVE GRINDABILITY INDEX =
REMARKS

Respectfully submitted,

COALFIELD RESEARCH, INC.

Timothy O. Steiner

TOS:tmm

COALFIELD RESEARCH, INC.

722 MAXWELL AVENUE • EVANSVILLE, INDIANA 47711 • TELEPHONE 424-2909 OR 424-2907

September 18, 1981

SIGECO
A.B. Brown Station
c/o Gary Frank
P.O. Box 569
Evansville, IN 47741

IN RE: Date Received: 9/16/81
Identification: Plant Sample
9/16/81

Laboratory Analysis no. 0981316

PROXIMATE ANALYSIS	As Received Basis	Air Dried Basis	Dry Basis
% Moisture	11.83	8.32	0
% Ash	8.88	9.23	10.07
% Volatile	38.56	40.10	43.74
% Fixed Carbon	40.73	42.35	46.19
Total Percentage	100.00	100.00	100.00
Btu/lb.	11,379	11,832	12,906
% Sulfur	3.68	3.83	4.18
MAF, Btu/lb.			14,351

ULTIMATE ANALYSIS	%Wt. As Rec.	%Wt. Dry
Moisture	11.83	0
Carbon	62.63	71.03
Hydrogen	4.45	5.05
Nitrogen	1.33	1.51
Sulfur	3.68	4.18
Ash	8.88	10.07
Oxygen	7.20	8.16

SULFUR FORMS			
% Pyritic Sulfur	1.93	2.01	2.19
% Sulfate Sulfur	.04	.04	.04 ← oxidized
% Organic Sulfur	1.71	1.78	1.95
% Total Sulfur	3.68	3.83	4.18

FUSION TEMPERATURE OF ASH	Reducing	Oxidizing
Initial Deformation	2050 °F	2400 °F
Softening (H=W)	2100 °F	2480 °F
Hemispherical (H=1/2W)	2165 °F	2520 °F
Fluid	2280 °F	2575 °F

FREE SWELLING INDEX =
HARDGROVE GRINDABILITY INDEX = 55

SILICA VALUE =
BASE:ACID RATIO =
T250 =

MINERAL OF ASH	%Wt. Ignited Basis
Silica, SiO_2	
Alumina, Al_2O_3	
Titania, TiO_2	
Ferric oxide, Fe_2O_3	
Lime, CaO	
Magnesia, MgO	
Potassium oxide, K_2O	
Sodium oxide, Na_2O	
Sulfur trioxide, SO_3	
Phos. pentoxide, P_2O_5	
Strontium oxide, SrO	
Barium oxide, BaO	
Manganese oxide, Mn_3O_4	
Undetermined	

REMARKS:
The results for Hydrogen & Oxygen do not include the Hydrogen & Oxygen associated with the moisture in the sample.

TOS:tmm

Respectfully submitted,

COALFIELD RESEARCH, INC.

Timothy O. Steiner

COALFIELD RESEARCH, INC.

722 MAXWELL AVENUE • EVANSVILLE, INDIANA 47711 • TELEPHONE 424-2909 OR 424-2907

September 24, 1981

SIGECO
A.B. Brown Station
c/o Gary Frank
P.O. Box 569
Evansville, IN 47741

IN RE: Date Received: 9/23/81
Date Completed: 9/24/81
Identification: Plant Sample 9/23/81

Laboratory Analysis No. 0981437

PROXIMATE ANALYSIS	As Received Basis	Air Dried Basis	Dry Basis
% Moisture	12.21		
% Ash	8.79	8.65	0
% Volatile		9.15	10.02
% Fixed Carbon			
Total Percentage			
Btu/lb.	11,423	11,887	13,013
% Sulfur	3.51	3.65	4.00
Moisture-Ash Free, Btu/lb.			14,462

SULFUR FORMS

% Pyritic Sulfur
% Sulfate Sulfur
% Organic Sulfur
% Total Sulfur

FUSION TEMPERATURE OF ASH

	Reducing	Oxidizing
Initial Deformation	°F	°F
Softening (Height = Width)	°F	°F
Softening (Height = ½ Width)	°F	°F
Fluid	°F	°F

FREE SWELLING INDEX =
HARDROVE GRINDABILITY INDEX =
REMARKS

Respectfully submitted,

COALFIELD RESEARCH, INC.

Timothy O. Steiner

TOS:tmm